PREFACE

In this volume, being the Administrative volume of 'The Indian Empire,' chapters i, ii, vi, viii, ix, and xvi are based on materials supplied by Mr. R. Nathan, C.I.E.; chapters iii and iv were written by Sir William Lee-Warner, K.C.S.I.; chapter [illegible] written by Mr. H. W. C. Carnduff, C.I.E.; chapter vii by Mr. E. D. Maclagan; chapter x is based on materials supplied by Mr. G. H. D. Walker, C.I.E.; chapter xi on materials supplied by Lieut.-General Sir Edwin Collen, G.C.I.E.; chapters xii, xiii, and xiv were written by Mr. Nathan; chapter xv was written by Major W. J. Bythell, R.E., and the appendix on Marine Surveys by Captain T. H. Heming, R.N. (retired), with assistance from Colonel A. W. Alcock, C.I.E.

INTRODUCTORY NOTES

Notes on Transliteration

Vowel-Sounds

a has the sound of *a* in 'woman.'
ā has the sound of *a* in 'father.'
e has the vowel-sound in 'grey.'
i has the sound of *i* in 'pin.'
ī has the sound of *i* in 'police.'
o has the sound of *o* in 'bone.'
u has the sound of *u* in 'bull.'
ū has the sound of *u* in 'flute.'
ai has the vowel-sound in 'mine.'
au has the vowel-sound in 'house.'

It should be stated that no attempt has been made to distinguish between the long and short sounds of *e* and *o* in the Dravidian languages, which possess the vowel-sounds in 'bet' and 'hot' in addition to those given above. Nor has it been thought necessary to mark vowels as long in cases where mistakes in pronunciation were not likely to be made.

Consonants

Most Indian languages have different forms for a number of consonants, such as *d*, *t*, *r*, &c., marked in scientific works by the use of dots or italics. As the European ear distinguishes these with difficulty in ordinary pronunciation, it has been considered undesirable to embarrass the reader with them; and only two notes are required. In the first place, the Arabic *k*, a strong guttural, has been represented by *k* instead of *q*, which is often used. Secondly, it should be remarked that aspirated consonants are common; and, in particular, *dh* and *th* (except in Burma) never have the sound of *th* in 'this' or 'thin,' but should be pronounced as in 'woodhouse' and 'boathook.'

Burmese Words

Burmese and some of the languages on the frontier of China have the following special sounds :—

aw has the vowel-sound in 'law.'
ö and ü are pronounced as in German.
gy is pronounced almost like *j* in 'jewel.'
ky is pronounced almost like *ch* in 'church.'
th is pronounced in some cases as in 'this,' in some cases as in 'thin.'
w after a consonant has the force of *uw*. Thus, *ywa* and *pwe* are disyllables, pronounced as if written *yuwa* and *puwe*.

It should also be noted that, whereas in Indian words the accent or stress is distributed almost equally on each syllable, in Burmese there is a tendency to throw special stress on the last syllable.

General

The names of some places—e. g. Calcutta, Bombay, Lucknow, Cawnpore—have obtained a popular fixity of spelling, while special forms have been officially prescribed for others. Names of persons are often spelt and pronounced differently in different parts of India; but the variations have been made as few as possible by assimilating forms almost alike, especially where a particular spelling has been generally adopted in English books.

NOTES ON MONEY, PRICES, WEIGHTS AND MEASURES

As the currency of India is based upon the rupee, all statements with regard to money throughout the *Gazetteer* have necessarily been expressed in rupees, nor has it been found possible to add generally a conversion into sterling. Down to about 1873 the gold value of the rupee (containing 165 grains of pure silver) was approximately equal to 2*s*., or one-tenth of a £; and for that period it is easy to convert rupees into sterling by striking off the final cipher (Rs. 1,000 = £100). But after 1873, owing to the depreciation of silver as compared with gold throughout the world, there came a serious and progressive fall in the exchange, until at one time the gold value of the rupee dropped as low as 1*s*. In order to provide a remedy for the heavy loss caused to the Government of India in respect of its gold payments to be made in England, and also to relieve foreign trade and finance from the inconvenience due to constant and unforeseen fluctuations in exchange, it was resolved in 1893 to close the mints to the free coinage of silver, and thus force up the value of the rupee by restricting the circulation. The intention was to raise

the exchange value of the rupee to 1*s.* 4*d.*, and then introduce a gold standard (though not necessarily a gold currency) at the rate of Rs. 15 = £1. This policy has been completely successful. From 1899 onwards the value of the rupee has been maintained, with insignificant fluctuations, at the proposed rate of 1*s.* 4*d.*; and consequently since that date three rupees have been equivalent to two rupees before 1873. For the intermediate period, between 1873 and 1899, it is manifestly impossible to adopt any fixed sterling value for a constantly changing rupee. But since 1899, if it is desired to convert rupees into sterling, not only must the final cipher be struck off (as before 1873), but also one-third must be subtracted from the result. Thus Rs. 1,000 = £100 $-\frac{1}{3}$ = (about) £67.

Another matter in connexion with the expression of money statements in terms of rupees requires to be explained. The method of numerical notation in India differs from that which prevails throughout Europe. Large numbers are not punctuated in hundreds of thousands and *millions*, but in lakhs and crores. A lakh is one hundred thousand (written out as 1,00,000), and a crore is one hundred lakhs or ten millions (written out as 1,00,00,000). Consequently, according to the exchange value of the rupee, a lakh of rupees (Rs. 1,00,000) may be read as the equivalent of £10,000 before 1873, and as the equivalent of (about) £6,667 after 1899; while a crore of rupees (Rs. 1,00,00,000) may similarly be read as the equivalent of £1,000,000 before 1873, and as the equivalent of (about) £666,667 after 1899.

Finally, it should be mentioned that the rupee is divided into 16 annas, a fraction commonly used for many purposes by both natives and Europeans. The anna was formerly reckoned as $1\frac{1}{2}$*d.*; it may now be considered as exactly corresponding to 1*d.* The anna is again subdivided into 12 pies.

The various systems of weights used in India combine uniformity of scale with immense variations in the weight of units. The scale used generally throughout Northern India, and less commonly in Madras and Bombay, may be thus expressed: one maund = 40 seers; one seer = 16 chittaks or 80 tolas. The actual weight of a seer varies greatly from District to District, and even from village to village; but in the standard system the tola is 180 grains Troy (the exact weight of the rupee), and the seer thus weighs 2·057 lb., and the maund 82·28 lb. This standard is used in official reports and throughout the *Gazetteer*.

For calculating retail prices, the universal custom in India is to express them in terms of seers to the rupee. Thus, when prices change, what varies is not the amount of money to be paid for the

same quantity, but the quantity to be obtained for the same amount of money. In other words, prices in India are quantity prices, not money prices. When the figure of quantity goes up, this of course means that the price has gone down, which is at first sight perplexing to an English reader. It may, however, be mentioned that quantity prices are not altogether unknown in England, especially at small shops, where pennyworths of many groceries can be bought. Eggs, likewise, are commonly sold at a varying number for the shilling. If it be desired to convert quantity prices from Indian into English denominations without having recourse to money prices (which would often be misleading), the following scale may be adopted—based upon the assumptions that a seer is exactly 2 lb., and that the value of the rupee remains constant at 1*s.* 4*d.*: 1 seer per rupee = (about) 3 lb. for 2*s.*; 2 seers per rupee = (about) 6 lb. for 2*s.*; and so on.

The name of the unit for square measurement in India generally is the *bīgha*, which varies greatly in different parts of the country. But areas have always been expressed throughout the *Gazetteer* either in square miles or in acres.

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ADMINISTRATIVE

CHAPTER I

THE GOVERNMENT OF INDIA

THE subject of this chapter is the growth and character of the British administration in India, but the preliminary paragraphs will give some idea of the general nature of the Hindu and Muhammadan governments which ruled the country in former times.

The Hindu system of government as described in the code of Manu.

During the long ages preceding the Muhammadan supremacy, the social organization of the Hindus passed through gradual stages of development and decay such as are incident to all human institutions. No description could be given which would apply at once to the early conquerors and settlers on the banks of the Indus, to the Hindu kingdoms which during a later age occupied the bulk of the Indian Peninsula, and to their successors in the days of their decline. For the present purpose it will suffice to select a central epoch, and the period which is illustrated by the code of Manu will be the most suitable. Scholars assign to this code in its present form a date lying between the second century before and the second century after Christ. It is a metrical recension of an older prose code, which formed one of a number of similar works composed by the founders of different schools for repetition by their students. After the death of Alexander the Great, Chandra Gupta Maurya, grandfather of the famous Asoka, reigned over the whole of Northern India from Bihār to the Punjab for some twenty years; and although the metrical code was prepared at a somewhat later date, it probably portrays fairly closely the state of society which prevailed when this great monarch ruled. Additional light has been thrown on this period by Arrian, Strabo, and other Greek writers, and

especially by Megasthenes, the ambassador of Seleucus—who had succeeded to the eastern portion of Alexander's empire—at the court of Chandra Gupta.

The system of government described in the code is an absolute monarchy, and the boldest poetical figures are used to describe the power and glory of the king[1]. His main functions are declared to be to restrain violence and to punish evildoers. The manner in which he should pass the day is laid down with some minuteness. He is to rise in the last watch of the night, make the morning sacrifice, hold public audience, consult with his ministers in some lonely place from which women and talking birds are carefully excluded, take exercise, bathe, dine, transact personal and family business, give some time to relaxation, review his troops, perform his religious duties at sunset, receive the reports of his emissaries, withdraw to his private apartments for supper, and, after indulging for some time in music, retire to rest. The court was maintained with some magnificence, and the Greek writers describe gorgeous processions and raiment. The king is to appoint seven councillors to assist him in the administration, and one learned Brāhman distinguished above them all. He is also to employ suitable persons for the collection of the revenues, and an 'ambassador,' who appears to have fulfilled the functions of a minister of foreign affairs. The administration is to be conducted by a chain of civil officers, rising from heads of single townships or villages to heads of 1,000 villages. The villages enjoyed a large measure of local autonomy, according to the immemorial custom of the country. The code of Manu refers to the village community, but gives little indication of its great importance. Megasthenes found the system in full force, and each little rural unit seemed to the Greek an independent republic. Every considerable town had its superintendent of affairs, whose duty it was to check the abuses to which the local officers were (it is said) prone. Megasthenes mentions that India was divided into 118 kingdoms. The Hindu kings must have waged frequent war, for a considerable portion of the code of Manu is filled with maxims and instructions regarding military organization and foreign politics, and large armies were maintained. According to Megasthenes, Chandra Gupta had an army more than twice as large as that which now

[1] Northern India in the pre-Maurya period also contained a number of aristocratic republics, of which an interesting account is given in chap. ii of Prof. Rhys David's *Buddhist India*; but in these too the supreme power gradually became hereditary and absolute.

defends the whole of the Indian Empire, and well furnished with elephants and war-chariots. The country was divided into military divisions, each maintaining a body of troops under an approved leader. The arts which may be employed against enemies are four—presents, sowing divisions, negotiations, and force of arms: the wise, it is said, prefer the two last. The king is to regard his nearest neighbours as hostile, the powers next beyond these natural foes as friendly, and all more remote powers as neutral. Great importance is attached to spies, both in foreign politics and in war. The laws of war and conquest were remarkable for their humanity. The revenue consisted of a share of the produce of land, taxes on commerce, a small annual imposition on traders and shopkeepers, and a forced service of a day in each month by artisans and labourers. The degree to which the actual administration conformed to the model presented by the code of Manu must have depended largely on the character and ability of the king. The accounts given by Greek and Chinese travellers and writers show that the people were on the whole contented and well governed.

Government in the days of Mughal rule.

The greatest and last among the Muhammadan dynasties which ruled Hindustān was the Mughal house of Tīmūr; and the greatest of the Mughal sovereigns was Akbar, who reigned from 1556 to 1605 and consolidated under his sway a vast territory extending from Kandahār to the farther confines of Bengal and from the Himālayas to the Deccan. A detailed account of Akbar's court and government has been preserved in the *Ain-i-Akbarī* or Institutes of Akbar, written by his friend and minister Abul Fazl; in other contemporary histories; and in the descriptions given by Europeans who visited the court of 'The Great Mogul.' The court itself was maintained on a scale of the most costly magnificence. No scene in India conveys a more vivid impression of oriental splendour than the panorama from the palace of Fatehpur Sīkri near Agra, for some time Akbar's capital. The splendid halls, the spacious courtyards and stables, the beautiful houses of the queens, the graceful mosque, and the numerous other edifices devoted to business or pleasure must, in their prime, have formed a residence well worthy of a great king. 'The good prince,' says Abul Fazl, 'refuses not his attention to the most trivial points,' and this principle was carried out to the full in the management of Akbar's stupendous establishment. The *Ain-i-Akbarī* contains details regarding the government of every department of the court. The treasury, the jewel office, the

mint, the harem, the camp equipage, the department of the water-cooler, the kitchen, the fruitery, the perfume office, the wardrobe, the library, the picture gallery, the armoury, and the stables are all the subject of precise and minute rules.

Religious toleration, and a desire to conciliate and include within his system the Hindu population, were the key-notes of Akbar's government. For the purpose of administration the empire was divided into fifteen *sūbahs* or provinces. To each province was appointed a governor in whom was vested, under the emperor, the supreme civil and military authority. Akbar's revenue policy was based on ancient Hindu customs, and much of it survives to this day. 'He first executed a survey to measure the land. His officers then found out the produce of each acre of land, and settled the government share, amounting to one-third of the gross produce. Finally, they fixed the rate at which this share of the crop might be commuted into a money payment. These processes, known as the land settlement, were at first repeated every year. But to save the peasant from the extortions and vexations incident to an annual inquiry, Akbar's land settlement was afterwards made for ten years. His officers strictly enforced the payment of a third of the whole produce, and Akbar's land revenue from Northern India exceeded what the British take (from a much larger area) at the present day[1].' The settlement was made under the direction of Akbar's great Hindu minister, Rājā Todar Mal. The principal local revenue collector was the *amalguzār*. He was a magistrate and police officer as well as a revenue official, and had to concern himself with all matters affecting the well-being of the peasantry. His duties as described in the *Ain-i-Akbari* bear a striking resemblance, on a small scale, to those of the Magistrate and Collector of a modern British District. He is instructed to consider himself the immediate friend of the husbandman, to be diligent in business and a strict observer of truth. It is his duty to punish 'the crafty and disobedient' who are not amenable to admonition, and he must not be satisfied with receiving a pecuniary fine in exculpation of murder or other capital offences. He is to endeavour to bring waste lands under the plough, and may allow some remission of the general rate of collection in order to promote the cultivation 'of such articles as will produce general profit and utility.' He is to assist the needy cultivator with loans of money to be repaid at convenient periods. The local treasury is entrusted to his care, and he must send the

receipts to head-quarters as soon as they exceed a certain sum. He has to take charge of the effects of absentees and of those who die without heirs, and must report the circumstance to the governor. He is required to make a monthly report on the condition of the people, the market price of goods, and all occurrences of interest.

Every considerable town was in the charge of a magistrate styled the *kotwāl*, who was the head of the police and supervised all branches of the local administration. Outside the towns there was no regular police force, but the villages had their hereditary watchmen. Apart from the magistrates justice was administered by a court, composed of an officer named the *mīr-adl* ('lord of justice') and a *kāzi* learned in the Muhammadan law. The latter conducted the trial and stated the law; the former, who appears to have been the superior officer, passed judgement.

Aurangzeb, the sixth of the Tīmūr dynasty, was the last of the great emperors of Delhi. His bigotry did much to undo the work of Akbar's wise and tolerant policy, and his reign witnessed the rise of the Marāthā power. On his death, in 1707, the empire of the Mughals fell into disorder and decay and, after a period of universal strife, was replaced by the empire of the British.

Periods in the history of British India.

The history of British India falls, as observed by Sir C. P. Ilbert in his *Government of India*, into three periods. From the beginning of the seventeenth to the middle of the eighteenth century the East India Company is a trading corporation, existing on the sufferance of the native powers and in rivalry with the merchant companies of Holland and France. During the next century the Company acquires and consolidates its dominion, shares its sovereignty in increasing proportions with the Crown, and gradually loses its mercantile privileges and functions. After the Mutiny of 1857 the remaining powers of the Company are transferred to the Crown, and then follows an era of peace in which India awakens to new life and progress. It is not the function of the present chapter to enter into the details of this history. But political institutions cannot be rightly understood without some study of their growth; and in India the development of the administrative system has followed so closely the course of territorial acquisition that it will be necessary to pass in brief review the salient incidents of the [rise] of British power.

The East India Com-

... years before the deaths of ... olved

pany—to the middle of the eighteenth century.

to form an association for the purpose of establishing direct trade with the East. On the last day of the sixteenth century (December 31, 1600), the Queen granted a Charter incorporating George, Earl of Cumberland, and 215 Knights, Aldermen, and Burgesses, by the name of the 'Governor and Company of Merchants of London trading with the East Indies.' The Charter conferred on this company a monopoly of the trade with all countries lying between the Cape of Good Hope and the Straits of Magellan. For a century and a half the pursuit of trade was the object of the Company's existence. Its monopoly was continued by successive Charters of the Stuart monarchs, as also by Cromwell, and its powers were extended to meet the needs occasioned by the growth of its enterprise and the establishment of its settlements. Trading relations were instituted with Masulipatam on the east, and Surat on the west, coast in the years 1611 and 1612. Madras was rented from a local Rājā in 1639. Bombay was ceded by Portugal to the British Crown as part of the dower of Catherine of Braganza in 1661, and granted in 1668 to the East India Company to be held of the Crown 'as of the Manor of Greenwich in free and common soccage.' Leave to trade with Bengal was obtained from the Mughal emperor in 1634; the factory at Hooghly was established in 1640; and Calcutta owes its foundation to the events of 1686, when Job Charnock was forced to quit Hooghly by the deputy of Aurangzeb and settled farther down the river. The Revolution of 1688 imperilled the position of the old or 'London' Company. It had to struggle for its privileges with a new 'English' Company, and after several years of contention the two were amalgamated by Lord Godolphin's award of 1702 as the 'United Company of Merchants of England trading to the East Indies.' From this period the Company's status was regulated by Acts of Parliament instead of by Charters from the Crown.

Administration of affairs in England and in India.

Queen Elizabeth's Charter empowered the Company to assemble and hold court for the purpose of making laws for its government, and vested the direction of its affairs in a Governor and twenty-four persons who were elected annually. By the end of the seventeenth century this constitution had developed into the General Court of Proprietors and the Court of Directors. Every holder of £500 stock had a vote in the Court of Proprietors, and the possession of £2,000 stock was the qualification for a Director. The Directors were still twenty-four in number, and were still elected annually by the Proprietors, who could also overrule their proceedings, a power

which they exercised towards the close of Warren Hastings' administration by maintaining him in office in the teeth both of the Directors and of resolutions of the House of Commons[1]. At the close of this period the factories and affairs of the Company on the east and west coasts of India, and in Bengal, were administered, at each of its principal settlements of Madras (Fort St. George), Bombay, and Calcutta (Fort William), by a President (or Governor) and a Council consisting of the senior servants of the Company. Power was exercised by the President and Council collectively, and orders were issued in accordance with the votes of the majority. The three 'Presidencies' were independent of one another and subordinate only to the Directors in England. The servants of the Company were classified, beginning from the lowest rank, as writers, factors, senior factors, and merchants. Promotion was usually by seniority. Salaries were extremely small, but large fortunes were made by private trade, supplemented occasionally by less honourable means.

Political condition of India in the middle of the eighteenth century.

In the middle of the eighteenth century, when the East India Company first began to play a part in the political affairs of India, the Mughal power was tottering to its fall, and the great Marāthā confederacy, the chief officers of the empire, the old Hindu princes, and newly-risen soldiers of fortune were warring incessantly for the mastery of its possessions. The emperor still nominally held the greater part of Northern India, but over most of this territory his authority was but a shadow of past dominion. Ahmad Shāh, the Afghān, wrested the Punjab from him in 1752; and this country remained under Afghān rule until, some fifty years later, it was conquered by Ranjīt Singh and his Sikhs. Rohilkhand, the country lying in the angle between the Upper Ganges and the Himālayas, had been appropriated by daring adventurers, known as Rohillas, from the Afghān hills. The viceroys of Oudh and Bengal had converted their provinces into virtually independent kingdoms. The Rājputāna States had fallen under the supremacy of the Marāthās, who levied at their pleasure large contributions from the Rājput chiefs. The Marāthās had by this time become the foremost power in India; and, although their empire had not yet reached its fullest limits, they had already spread across the Peninsula from the west coast to the confines of Bengal, and

[1] By Pitt's Act of 1784 the Court of Proprietors was deprived of the power of revoking or modifying any proceeding of the Court of Directors which had received the approval of the then newly-constituted Board of Control, and it became practically only an electoral body.

from the Tungabhadra in the south to the Jumna in the north. In the Deccan the most powerful ruler, outside the Marāthā territories, was the Nizām-ul-mulk, another Mughal viceroy who had shaken off the control of Delhi and whose successor still rules at Hyderābād. His nominal subordinate, the Nawāb of the Carnatic, ruled over the territory on the east coast which now forms the principal part of the Madras Presidency. In the south of the Peninsula were various Hindu principalities, of which the largest was Mysore, under a Hindu prince of ancient family, destined to fall ere long into the power of Haidar Alī, a Muhammadan adventurer. Such was the position of the main actors in the drama. None of them had an assured dominion, and their boundaries changed incessantly with the varying chances of war.

Clive. con- ts of East a pany.

In this hotbed of strife the Company found the rôle of the peaceful trader impossible to maintain. When the central authority could no longer afford it protection, it had to arm itself against the caprice or the covetousness of the local potentates, and also against the rivalry of the French. It was the action of the French in the Carnatic which first drove the British to take an active share in the struggle for power which convulsed the South of India. Dupleix, the Governor of the French possessions, realized the possibilities resulting from the decline of the Mughal empire, and conceived the idea of founding a European dominion, by taking part in the war of factions and supporting the cause he espoused with native troops armed and disciplined in the fashion of the West. He pursued this policy with such skill and success that he established his nominees at Hyderābād and in the Carnatic, and secured a paramount influence in this part of India. The British, finding themselves in danger of being driven from their establishments on the east coast, were compelled to support the cause of rival candidates. The further course of the struggle, the brilliant part which Clive took in it, and the causes of the French failure, cannot be recounted in this place. The crucial point is that when, in 1761, Pondicherry was captured by Sir Eyre Coote and the power of the French finally overthrown, the East India Company was left in a position of political and military ascendancy and had to accept the responsibilities and duties of this new situation.

The forward policy of the British in Northern India likewise arose indirectly from rivalry with the French. Alarmed by the prospect of a declaration of war in Europe, they began to strengthen the defences of Fort William, in face of a prohibi-

tion from Sirāj-ud-daula, the Nawāb of Bengal. It was this encroachment upon his rights of sovereignty, combined with other causes for displeasure, that induced the Nawāb to march upon Calcutta with a large army. He took the town and perpetrated, or suffered to take place, the tragedy of the Black Hole. In the war which followed Clive routed the Nawāb at Plassey (1757), and at once secured the virtual mastery of the richest province in India, thereby transferring the centre of the Company's power from Madras to Calcutta. In imitation of Dupleix's system, a puppet Nawāb was set up and maintained by the Company's troops. The plan worked badly, and a period of misgovernment culminated in the invasion of Bengal by the Nawāb Wazīr of Oudh, who carried in his camp the titular emperor of Delhi. He was defeated by Major Hector Munro at Buxar, on the Ganges, in the year 1764. Clive, who had returned to India after an absence of some years, then obtained from the emperor the Dīwāni or administration of the revenues of Bengal, Bihār, and Orissa, which carried with it the exercise of civil jurisdiction, though the Nizāmat, or criminal jurisdiction, and police powers remained with the Nawāb. The management was, however, left under native control until 1772, when the Company 'stood forth as Dīwān' and took over the direct administration of the revenue, which was soon followed by the assumption also of criminal jurisdiction. The full rights of territorial sovereignty over Bengal thus passed to the Company. The victory of Buxar carried the British arms to Allahābād; Oudh was at their mercy; and Clive saw clearly, and stated explicitly, that the whole Mughal empire lay within their grasp. But neither he nor the Company was willing to entertain so vast a scheme of conquest; and they therefore restored the territories on the northern side of the Ganges to the Nawāb-Wazīr of Oudh, and concluded a treaty with that prince which helped to secure peace on the Bengal frontier for a period of forty years.

Warren Hastings. The existence of British dominion imperilled.

The period of Warren Hastings' rule (1772–85) was one of great peril for the British dominion in India, as in other parts of the world. Britain was at war with all the great maritime powers—France, Holland, and Spain—and with her own colonies in North America. In India she had to face Haidar Alī, who had by this time carved out a great kingdom in the south of the Peninsula, and also the formidable Marāthā power. Both were in league with the French, who endeavoured, as in America, to cut off the British forces from their home base. But the English fleet succeeded in keeping the command of the

sea; and when Hastings resigned the Governor-Generalship in 1785, ten years' war had left the British with their position unshaken. The only new territories acquired during this period were the domain of the Rājā of Benares, adjoining the Company's possessions in Bihār, and Salsette island in the neighbourhood of Bombay. In the north the Rohilla War had strengthened the frontier against the Marāthās, by transferring Rohilkhand from its Afghān rulers to the Nawāb Wazīr of Oudh.

Lord Cornwallis. Marāthā and Mysore complications.

Lord Cornwallis succeeded to the Governor-Generalship in 1786. He came out with the instruction and the desire to pursue a pacific and moderate policy. In 1784 an Act of Parliament had declared that 'to pursue schemes of conquest and extension of dominion in India are measures repugnant to the wish, the honour and policy of this nation.' But no Act of Parliament could stay the march of events. Lord Cornwallis found Tipū Sultān, the son of Haidar Alī, scheming with the French and with every other power which he thought could aid him to retaliate on the British. The Marāthās were at the height of their power, and disturbed or menaced the peace of every State in India. Sindhia had gained the chief place in the confederacy and had carried his conquests far into the north. The Oudh government was becoming weak and inefficient, and that State was falling more and more completely under British protection. Cornwallis succeeded in avoiding actual hostilities with the Marāthās, but Tipū Sultān forced a war on him by an unjustifiable attack on Travancore, a State under British protection. He was defeated in 1792 by the allied forces of the Company, the Nizām, and the Marāthās, and was stripped of a large part of his dominions, including several districts added to the Madras Presidency.

Lord Wellesley. Extension of the power and territories of the Company.

From 1792 to 1798 the British maintained a rigid attitude of non-interference, with the result that the Sultān of Mysore and the Marāthā chiefs augmented their military forces and extended their territories at the expense of their neighbours. In April, 1798, Lord Mornington (afterwards Marquis Wellesley) landed in India and during seven years pursued a very different policy. He determined to establish the ascendancy of the British power over all other States in India by a system of subsidiary treaties, so framed as 'to deprive them of the means of prosecuting any measure or of forming any confederacy hazardous to the security of the British empire, and to enable us to preserve the tranquillity of India by exercising a general control over the restless spirit of ambition and violence which

is characteristic of every Asiatic government[1].' He executed his plan with complete success; and when he left India, the Punjab, Sind, and Nepāl were the only territories which remained completely outside the paramount British influence, while the area of direct occupation had also been greatly enlarged. Events had been hastened by the Napoleonic wars. Tipū Sultān, who still retained a seaport on the Malabar coast, entered into negotiations for an alliance with France, and received into his capital a small body of French volunteers. War was declared against him; he was slain in the storm of Seringapatam and his territories were confiscated. A portion was given to our ally, the Nizām of Hyderābād; the present State of Mysore was restored to the ancient Hindu dynasty by which it is now ruled; and the rest was incorporated in the Madras Presidency. In 1801 the Carnatic, which had for many years been in complete dependence on the Company, was brought under direct administration. Thus in a few months the Madras Presidency developed from some scattered districts into the great Province now known by that name. The state of confusion in Oudh, and the danger to be apprehended in this direction from the Marāthās, necessitated a resettlement of affairs there. The Nawāb ceded all his frontier districts, including Rohilkhand, and the revenue of this territory was taken as an equivalent for the subsidy payable for the troops employed in the defence of this State. This annexation confronted the British and the Marāthā chief Sindhia along the whole line of the latter's possessions in Northern India. The Marāthā confederacy, which extended from Malabar almost to the Himalāyas, was now the only power which seriously threatened the British dominion. But the great chiefs and the Peshwā (the titular head of the confederation) were at strife among themselves. Sindhia was the most important of the chiefs and held possession of the Mughal emperor's person. Lord Wellesley intervened on behalf of the Peshwā. War broke out in 1803, and after a well-contested series of engagements the Marāthās were defeated and sued for peace. A British force was stationed at Poona, the capital of the Peshwā; and in the north a large tract of territory was ceded to the Company which, with the districts already acquired from the Nawāb of Oudh, now goes to form the greater part of the Province of Agra.

[1] Wellesley Despatches, quoted in Sir Alfred Lyall's *British Dominion in India*, chap. xiv.

Lord Hastings. The last Marāthā war.

Lord Wellesley's policy had been carried out in despite of the Directors, and when he left India another period of reaction set in. The British, retiring within their borders, declared that they would abstain from interference in the affairs of the Native States. But they had already assumed the position of paramount power, and it was impossible that they could remain uninterested spectators of the violence and anarchy which soon filled all India outside their immediate jurisdiction. Lord Hastings' endeavours to restore order and to put down the hordes of freebooting Pindāris resulted in another Marāthā war (1817–18), which finally broke up the confederation and extinguished the power of the Peshwā. A large tract of country was annexed in Western India, thus giving to the Bombay Presidency a territorial importance similar to that already possessed by Bengal and Madras. At the same time the Saugor and Nerbudda territories, which now form a part of the Central Provinces, were taken from the Marāthā Rājā of Nāgpur. A tract along the Himālayas had previously been won from Nepāl, while the principality of Coorg, in the south, was annexed, as the result of misgovernment, in 1834.

The north-western and eastern frontiers. The Burmese and Sikh wars. Acquisition of Sind, the Punjab, and Baluchistān.

From the Sutlej to the Brahmaputra no power was left to challenge the predominance of British rule, and henceforth the north-western and eastern frontiers became the chief spheres of political and military activity. In 1824 depredations on the Bengal frontier first brought the Burmese into collision with the Government of India. The war which followed ended in the acquisition of Assam, Arakan, and Tenasserim. In the north-west Russian progress into Central Asia brought another great nation within the sphere of Indian politics. Two Native States extended along the British border from the Arabian Sea to the Himālayas. To the south Sind was ruled by Muhammadan Amīrs; to the north the military and religious brotherhood of the Sikhs occupied the Punjab. Sind was conquered by Sir Charles Napier in 1843 and the British frontier pushed on to Baluchistān. The Sikhs were a formidable military power and had contended successfully with the Afghāns. In the anarchy and confusion which followed the death of Ranjīt Singh, 'the Lion of the Punjab,' the Sikh army crossed the border (1845) and invaded British territory. After a series of desperate engagements they were driven back across the Sutlej, and for two years the State was administered under the general protection and superintendence of the Indian Government. In 1848 the military classes rose in insurrection, and after a second hard-fought campaign were finally overthrown. The Punjab

was annexed by Lord Dalhousie in 1849, and since then the border line has run between British India and Afghānistān. The wars with Afghānistān, which belong to the external politics of British India, need not be noticed here. The only territory acquired beyond the Sulaimān range on the north-west frontier is the minor Province of Baluchistān, which includes the military base of Quetta first occupied in 1876. The Kurram valley, which was first occupied during the Afghān War (1878–80), was finally taken over at the request of the Tūri inhabitants in 1893; and the Wazīristān tract has been brought under British political administration by gradual stages, beginning in 1892.

Acquisition of Lower Burma, Nāgpur, Oudh, and Upper Burma.

In 1852 Pegu was annexed, as the result of the second Burmese War, to become, with Arakan and Tenasserim, the Province of Lower Burma. In 1853 the Nizām of Hyderābād made over certain districts called the Berārs to be held in trust as payment for the forces maintained for his protection, and the British occupation of these has recently (1902) been confirmed by a perpetual lease from the Nizām. Nāgpur lapsed in 1854, on the death of its Rājā without heirs, and became the nucleus of the Central Provinces. The kingdom of Oudh was annexed in 1856, to protect its people from continued misgovernment and oppression. In 1857 came the Mutiny; and in the following year the government of India was formally transferred from the Company to the Crown, while accompanying the transfer the Queen's celebrated Proclamation promised maintenance of the rights of Native Princes, enjoined the strictest religious neutrality, and notified that 'so far as may be, our subjects of whatever race and creed [shall] be freely and impartially admitted to offices in our service the duties of which they may be qualified by their education, ability, and integrity duly to discharge.' From this time onwards the history of India is mainly concerned with administrative improvement and the development of the arts of peace. Beyond the advance on the north-west frontier above referred to, the only important addition made to the empire since the Mutiny is the large province of Upper Burma, acquired by conquest in 1886.

The administrative system of British India. Plan of the remain-

One noticeable feature of the history of British India, which is apparent even from the rough sketch just concluded, is that the tide of conquest never turned against the Company. Once it had taken a province under its direct administration it was able to ensure permanent peace to the inhabitants, however distracted might be the condition of those parts of India which

ing part of the chapter.

had not been brought under its sway. From this most important circumstance it followed that the building up of the administrative system proceeded almost without interruption from the days of the Company's earliest conquests.

We can now deal with the evolution of the Government of India as at present constituted, and of the subordinate administrations, and shall then touch on the system of control exercised by the Home Government. Finally a brief account will be given of the civil service, the internal administration of the Provinces being left to the next chapter.

The executive Government. The Regulating Act of 1773.

The system of government by mutually independent and unwieldy councils[1] of the merchants at the Presidency towns gave rise to grave abuses: it was hardly adequate for the management of the local affairs of a large trading corporation, and became impossible as soon as the Company was called upon to fill a more important rôle. Clive's victories, and the grant of the rich Province of Bengal, fixed public attention on India; and at the same time the financial affairs of the Company fell into disorder, while its servants, the 'Nabobs,' returned home with large fortunes amassed, it was rumoured, in the most unscrupulous manner. Parliament intervened. Several inquiries were held and statutes passed; and finally, in the year 1773, during the administration of Lord North, was enacted the Regulating Act, 'for the better management of the affairs of the East India Company as well in India as in Europe.' The reforms instituted in the Home Government by this and subsequent Acts belong to a later portion of this chapter. In India a Governor-General and four Councillors were nominated to administer the Presidency of Fort William (Bengal), and the supremacy of that Presidency over Madras and Bombay was for the first time declared. The subordinate Presidencies were forbidden to wage war or make treaties without the previous consent of the Governor-General of Bengal in Council, except in case of imminent necessity[2]. The Governors of these Presidencies were directed in general terms to obey the orders of the Governor-General-in-Council, and to transmit to him intelligence of all important matters. But the then isolated situation of the three Presidencies rendered the control of the Bengal Government more theoretical than real, as was

[1] The members of these councils varied from twelve to sixteen in number, and were usually appointed (as above mentioned) by seniority.

[2] Pitt's Act of 1784 gave a similar control to the Court of Directors with reference to the Governor-General-in-Council, *vide* p. 36.

shortly proved by the embarrassing action of the Bombay authorities in the Marāthā troubles of 1775–82. Other provisions of the Act were directed against the prevailing abuses, and private trade and the receipt of presents were forbidden to the servants of the Company.

Pitt's Act of 1784.

Pitt's Act of 1784, which established the Board of Control in England, vested the administration of each of the three Presidencies in a Governor and three Councillors, including the Commander-in-Chief of the Presidency army. At the same time the control of the Governor-General-in-Council over Madras and Bombay was somewhat extended, as it was again by the Charter Act of 1793; but distance still secured for the subordinate Presidencies the continuance for some time of much of their independence of action, and its final curtailment was due as much to the British possessions becoming contiguous, and to the development of means of communication, as to mere injunctions of subordination to the central Government. The extension of territorial possessions which took place during Lord Wellesley's administration (1798–1805) carried the Company a long step forward in the course of its transition from a trading corporation to a ruling power. At the same time the monopoly which was needed in the time of Elizabeth to enable British trade to organize itself against foreign rivals in a distant and little-known country had become unsuited to the times, and the general body of merchants clamoured to be admitted to the commerce of the East. The Company fought hard for its privileges, although it is at least doubtful whether its trade profits as distinguished from its territorial revenues were considerable. It was not, however, strong enough to stay the march of events, and the Charter Act of 1813 withdrew the monopoly except with regard to tea and the China trade.

The Charter Act of 1833.

Twenty years later the Charter Act of 1833 directed the Company to close its commercial business with all convenient dispatch. The Company thus became a purely political and administrative body, holding its territories in trust for the Crown. The same Act vested the direction of the entire civil and military administration and the sole power of legislation in the Governor-General-in-Council, now for the first time styled 'of India,' and defined more precisely the nature and extent of the control to be exercised over the subordinate Governments. These consisted as yet only of Madras and Bombay; but the Act provided for the creation of a Presidency of Agra, which was constituted, in a modified form, as the Lieutenant-Governorship of the North-Western Provinces, in

1836. Later, in 1854, a Lieutenant-Governor was appointed to Bengal (including Bihār and Orissa), which had hitherto been administered directly by the Governor-General[1]. The Government of India then assumed its present character of a general controlling authority.

Transfer of government to the Crown, 1858.

Three years later came the Mutiny, and in 1858 an Act was passed transferring the government of India from the Company to the Crown. This Act made no important change in the administration in India, but the Governor-General as representing the Crown became known as the Viceroy. He is appointed by Royal Warrant, and usually holds office for a term of five years. The designation 'Viceroy,' although it is that most frequently used in ordinary parlance, has no statutory authority, and has never been employed by Parliament. It originated in the well-known Proclamation of 1858, which announced the assumption of the government of India by the Crown, and in so doing referred to Lord Canning, who had already been appointed Governor-General by the retiring Board of Directors, as the 'first Viceroy and Governor-General.' None of the Warrants appointing Lord Canning's successors refers to them as 'Viceroys;' and the title, which is frequently employed in Warrants of Precedence, in the statutes of the Indian Orders, and in public notifications, appears to be one of ceremony, which may most appropriately be used in connexion with the state and social functions of the Sovereign's representative, for the Governor-General is the sole representative of the Crown in India. The salary of the Viceroy is 2½ lakhs of rupees per annum.

Relations of the Government of India with the Provincial Governments.

The Governor-General-in-Council is responsible for the entire administration of British India and for the control exercised in varying degrees over the Native States. The actual work of administration is, however, divided between the Government of India and the Local Governments. The Government of India[2], that is to say the Governor-General-in-Council, retains in its own hands all matters relating to foreign relations, the defences of the country, general taxation, currency, debt, and tariffs, posts, telegraphs, and railways. Ordinary internal administration; the assessment and collection of the revenues; education; medical and sanitary arrangements; and irrigation, buildings, and roads fall to the share of the Provincial Govern-

[1] Here, too, the original intention, never carried out, was to have a Governor-in-Council.

[2] Also termed the Supreme Government, in contradistinction to the subordinate Provincial administrations.

ments. But in all these matters the Government of India exercises a general and constant control. It lays down lines of general policy and tests their application from the administration reports, which are as a rule annually submitted to it, of the main departments under the Local Governments[1]. Besides the controlling officers for departments which it directly administers, such as Railways, Post Office, Telegraphs, the Survey of India, and Geology, it employs a number of inspecting or advisory officers for those departments which are primarily left to the Local Governments, including Agriculture, Irrigation, Forests, Medical, Education, and Archaeology. Not only does it receive, and when necessary modify, the annual budgets of the Local Governments; but every new appointment of importance, every large addition even to minor establishments, has to receive its specific sanction, with the practical result that no new departure in administration can be undertaken without its preliminary approval. There is, moreover, a wide field of appeal to the Government of India from officials or private persons who may deem themselves aggrieved by the action of a Local Government; and outside Madras and Bombay the approval of the Governor-General is necessary to the appointment of some of the most important officers of the Provincial administration.

The major Provinces have their own budgets; and shares of certain items of revenue raised in the Province, the chief of which are land revenue and cesses, excise, stamps, forests, and income-tax, are definitely assigned to the Local Government. Such assignments were formerly only for a period of years, usually five, at the end of which the arrangements might be revised by the Supreme Government; but it is now intended to make them more permanent, and arrangements to this effect have already (1906) been concluded with most of the Local Governments. The more important Provinces possess legislative councils; but the scope of these is strictly limited to local matters relating to the Province, and their Acts require the approval of the Governor-General.

The supervision over most of the important Native States in India rests directly with the Governor-General-in-Council. In some cases, however, historical associations have left relations with important States, such as Travancore, Kolhāpur, and Patiāla, under the Local Governments, which also deal with

[1] The Local Governments also submit monthly copies of all their printed proceedings to the Government of India.

minor States whose territories are enclosed in, or contiguous to, their Provinces.

The Council of the Governor-General.

Warren Hastings' Council consisted of four members named in the Act of 1773. They were to hold office for five years[1], and the patronage was then to vest in the Company. Pitt's Act of 1784, as already stated, reduced the number of members to three, including the Commander-in-Chief. In 1793 the number of ordinary members was fixed at three, and the addition of the Commander-in-Chief was made conditional on special appointment. The Charter Act of 1833 added a fourth member to assist in legislation; but he was not authorized to take part in executive business until 1853. The disordered condition into which the finances fell after the Mutiny made it necessary to secure the services of an expert from England, and in 1861 a fifth member was in consequence added to the Council. In 1874 power was given to appoint a sixth member for public works purposes only; but this power was not always exercised, and in 1904 the restriction limiting it to public works purposes was removed. The present Council (1906) consists, therefore, of six ordinary members, and the Commander-in-Chief may be, and in practice always is, appointed an extraordinary member. The ordinary members are appointed by Royal Warrant and usually hold office for five years. Three must have been for at least ten years in the service of the Crown in India, and one must be a barrister of England or Ireland, or a member of the Faculty of Advocates of Scotland, of not less than five years' standing. The salary of a member of Council is limited to Rs. 80,000 per annum, and that of the Commander-in-Chief to one lakh.

The Council originally worked as a consultative board, all questions being decided by the votes of the majority. The difficulties which arose from this procedure during the administration of Warren Hastings, who was constantly thwarted and overruled by an adverse majority led by Philip Francis, are well known. When Lord Cornwallis was appointed Governor-General in 1786, he made it a condition that his powers should be enlarged. An Act was therefore passed authorizing the Governor-General to override the majority of his Council, and

[1] 'It is believed that this temporary enactment is the origin of the custom under which the tenure of the more important offices in India, such as those of Governor-General, Governor, Lieutenant-Governor, and member of Council, is limited to five years. The limitation is not imposed by statute or by the instrument of appointment, and rests only on custom.'—Ilbert, *The Government of India*, p. 47.

to act on his own responsibility in matters of grave importance. This condition was repeated in subsequent enactments and is still in force. But the circumstances which prevailed in the time of Warren Hastings never recurred, and this special power of the Governor-General has hardly ever been exercised. Under the board system of administration initiated by Lord Cornwallis, the Council acted in the capacity of advisers only, offering opinions on the cases put before them but exercising no individual responsibility. The appointment of special members for law and finance was a departure from this system. As the amount and complexity of business increased, it became more than a single board could manage; and in the time of Lord Canning the work of the various departments was distributed among the members of the Council, only the more important cases being dealt with by the Governor-General or the Council collectively. This procedure was legalized by the Councils Act of 1861, a clause in which empowers the Governor-General to make arrangements for the convenient dispatch of business, any act done under orders so passed being deemed the act of the Governor-General-in-Council.

The Charter Act of 1793 and later enactments make special provision for the absence of the Governor-General from his Council. In such a case, a member of the Council may be appointed President, to exercise the powers of the Governor-General at meetings of the Council; and the Governor-General, by an order made in Council, may be vested with authority to exercise alone, at his discretion, any of the powers which ordinarily are exercised by the Governor-General-in-Council. Until some years after the Mutiny these provisions were frequently used, and the Governor-General was absent from Calcutta during the greater part of his term of office. Some of the Secretaries accompanied him, and much of the important work of the country was done without the Council. This procedure became increasingly inconvenient and gradually fell into disuse. The last occasion on which a President was appointed was when Lord Dufferin visited Burma after the annexation of the Upper Province. The ordinary meetings of Council may, under the Charter Act of 1833, be held at any place fixed by the Governor-General-in-Council. In practice meetings are held during the winter in Calcutta and during the summer in Simla; and the Governor-General is absent from his Council only for short tours, during which, in these days of rapid postal and telegraphic communication, no special arrangements are required.

Conduct of business.

Under the system inaugurated by Lord Canning the business of the Government of India is conducted in a manner analogous to the cabinet administration of a European country. The members of the Council correspond to Ministers in charge oi departmental portfolios, and a large measure of control is exercised by the Governor-General over all branches of the service. The Government is divided into the Departments of Foreign, Home, Revenue and Agriculture, Legislative, Finance, Public Works, Commerce and Industry, Army, and Military Supply. The Governor-General himself administers the Foreign Department; the Revenue and Public Works Departments form together the charge of a single official; and each of the other Departments is under one of the remaining ordinary members of Council. Until 1905, the Home and Revenue Departments were in charge of a single member, always selected from the Indian Civil Service. The Financial member is sometimes a financier of special experience selected in England, and sometimes a member of the Indian Civil Service. The Legislative member is a lawyer, and the Military Supply member an officer of the British or Indian army. The Commander-in-Chief, as extraordinary member, takes part in the deliberations of the Council, and also holds charge of the Army Department. At the head of each Department is a Secretary to the Government, assisted by a staff of Deputy, Under, and Assistant Secretaries, varying in number with the amount of business which the Department transacts. The position of the Secretary is comparable with that of a permanent Under-Secretary of State in England. Under the rules for the disposal of business, the papers regarding any subject which comes up for consideration are prepared by the Department concerned and submitted to the member in charge. In minor cases the member passes orders; all important matters, and especially cases where two Departments differ in opinion or a Local Government is overruled, are referred to the Governor-General and orders are passed either by him or by the whole Council. Questions raising large issues of general policy, or requiring legislation by the Government of India, are always settled in Council. The Council usually meets once a week, but special meetings may be called at any time. The meetings are private, and the decisions arrived at are termed Orders in Council. The Secretary of the Department to which each case belongs attends during its discussion and records the order. If there is a difference of opinion the vote of the

majority prevails, subject to the power of the Governor-General to overrule the Council in exceptional cases.

The existing division of business among the various Departments (excluding the two Departments of Army and Military Supply, which were reorganized in 1906) was made in 1905, when the addition of a sixth ordinary member to the Council involved an extensive redistribution of portfolios. At that time the Departments were the Foreign, Home, Revenue, Legislative, Financial, Public Works, and Military. The Military, Legislative, and Foreign Departments were not affected by this change, but the others were rearranged in connexion with the creation of a new Department of Commerce and Industry. The Revenue and Agricultural Department was separated from the Home and now has its own member of Council, who also administers the Public Works Department. The latter was relieved of railway business by the new Department of Commerce and Industry and the new Railway Board, and now retains only irrigation, roads and buildings, and miscellaneous public works. Redistribution of 1905.

The Foreign Department transacts all business connected with external politics, with frontier tribes, and with Native States in India. It also controls the general administration of Ajmer-Merwāra, the North-West Frontier Province, and British Baluchistān. The most important external relations of the Government are connected on the north-west frontier with Afghānistān and Persia, and farther afield with the coast of Southern Arabia, and in the north and east with Tibet, China, and Siam. The Foreign Department.

Besides the territories under the direct sovereignty of the Crown, India includes nearly 700 Native States, which cover an area of about 770,000 square miles and contain a population of 64,000,000 inhabitants[1]. They differ from one another greatly in size and importance. The Nizām of Hyderābād rules over an area of 83,000 square miles; there are petty chiefs in Kāthiāwār whose territory consists of a few acres. The expression Native State does not imply that the territory is governed by a chief who is of the same race or religion as the people of the State. The Nizām of Hyderābād is a Muham-

[1] Excluding Nepāl, the area and population of which are very problematical. The census statistics, which showed an area of 679,393 square miles, and a population of 62,461,549, under Native States, did not reckon therein the Shan States of Burma, the Khāsi and Jaintiā Hills, or Manipur, which were all included in the British totals; nor did the census operations extend to Bhutān.

madan ruling over a people mainly Hindu, while the Hindu Mahārājā of Kashmīr governs a population that is principally Muhammadan. Nor again, outside Rājputāna, are the ruling houses generally of ancient origin; few go back beyond the eighteenth century and the troublous times that followed the break-up of the Mughal empire. In early days the most important of these States were allies or rivals of the Company and made treaties with it on terms of equality; but as the British Government gradually succeeded to the paramount power of the Mughal empire it acquired the suzerainty wherever it did not assume the direct rule. Prominent recognition was given to this principle when, on January 1, 1877, the Queen of England was proclaimed Empress of India. The powers of the chiefs differ greatly according to the history and importance of their States, being regulated partly by treaties or less formal engagements, partly by *sanads* or charters, but mainly by usage. 'The maximum of sovereignty enjoyed by any of their rulers is represented by a prince like the Nizām of Hyderābād, who coins money, taxes his subjects, and inflicts capital punishment without appeal. The minimum of sovereignty is represented by the lord of a few acres in Kāthiāwār, who enjoys immunity from British taxation and exercises some shadow of judicial authority[1].' Even in the largest States the Government of India exercises an extensive authority. It retains exclusive control over all external relations; it assumes a special responsibility for the safety and welfare of British subjects and of the subjects of foreign powers; and the guarantee it affords to the native ruler against the risk of being removed by insurrection involves a corresponding guarantee to his subjects against oppression and misgovernment, a responsibility which has sometimes to be exercised by curtailing the powers, and occasionally by the deposition, of an unworthy chief. In all considerable States the paramount power is represented by a resident Political Officer with a staff of subordinates. The most important of these are the Residents in Hyderābād, Mysore, Kashmīr, Nepāl, and Baroda, and the Agents to the Governor-General for the groups of States known as the Rājputāna and Central India Agencies[2]. The officers of the Political department form a graded service, which is recruited mainly from the Indian Civil Service and the Indian Army.

[1] Ilbert, *The Government of India*, p. 142.

[2] The Rājputāna and Central India Agents have under them subordinate Residents and Agents who are appointed to the component States of the Agencies.

With regard to the internal administration of the Provinces above mentioned (Ajmer-Merwāra, &c.), the Foreign Department exercises the same general functions of control as are exercised over ordinary Provinces through the Home Department. The Foreign Department further deals with questions of ceremonial, and with matters relating to the Indian Orders. It supervises the Imperial Service troops and the Imperial Cadet Corps, and also the Chiefs' colleges, which will be noticed in the chapters on Army and Education.

The Home Department.

The Home Department is concerned with the work of general administration, and deals with internal politics, law and justice, jails, police, education, hospitals, public health, municipalities and local boards, ecclesiastical matters, the administration of the Arms Acts, and a number of other subjects. These matters fall primarily within the jurisdiction of the Local Governments; and the work of the Home Department consists, therefore, to a large extent in controlling the Provincial administrations, while it more directly administers the penal settlement of Port Blair in the Andaman Islands, to which convicts sentenced to transportation are sent. It has also to perform much direct work of a miscellaneous character. The superior officers of several departments of the administration under Local Governments belong to Imperial services, such as the Indian Civil Service, which are under the general control of the Home Department. The work of the Ecclesiastical department is shared between the Supreme and the Local Governments. The Charter Acts of 1813 and 1833 provided for the appointment of Bishops at Calcutta, Madras, and Bombay, and conferred on them ecclesiastical jurisdiction and power to admit to holy orders. The Bishop of Calcutta is also Metropolitan in India. Bishops have been appointed to other dioceses such as Lahore, Rangoon, Lucknow, and Nāgpur; but these do not derive their authority from Act of Parliament, and their official status as regards salary, leave, and pension is that of a senior chaplain. Government chaplains are maintained, or allowances are granted to other clergymen, to provide the ministrations of religion to British-born subjects of the Crown, and especially to soldiers and their families, whether Anglican, Presbyterian, Wesleyan, or Roman Catholic[1]. The authority of

[1] The policy of the British Government in respect to the natives of India has always been one of the strictest religious neutrality. Missionary bodies act entirely on their own responsibility and with their own funds; and though their schools are eligible for educational grants, these are entirely for the purpose of secular instruction and may be obtained on similar terms

the Governor-General-in-Council over the Law Officers of the Supreme Government is exercised through the Home Department, which also controls the Imperial Library in Calcutta and the Imperial Record Office, and exercises a general superintendence over all operations for the preservation of ancient monuments and archaeological exploration.

The Department of Revenue and Agriculture, which had been created in 1871 and abolished in 1879, was reconstituted in 1881 in pursuance of the recommendation of the Famine Commission. Its main functions were then described as the administration of the land revenue, agricultural inquiry, agricultural improvement, and famine relief. The state, in India, has by immemorial custom a claim to a share in the produce of all lands, and the land revenue is the largest asset of the Government. To simplify the assessment of the land revenue, to ensure equity and moderation in the demands of the state without undue sacrifice of its interests, to give security of tenure to tenants, and to improve agricultural credit, are a few of the many problems which demand the constant attention of this Department on its revenue side. Not less serious and important are the responsibilities which rest upon the Department in the control of operations for the prevention and relief of famine. These matters are however primarily dealt with by the Local Governments, and the functions of the Department in respect thereto are mainly of a controlling and directing character.

The organization of economic and scientific investigation and of measures of agricultural improvement forms another important branch of the work of the Department. The Famine Commissioners of 1878 laid much stress on the institution of scientific inquiry and experiment, designed to lead to the gradual increase of the food-supply of the country and to the greater stability of agricultural out-turn. It was considered desirable, however, first to organize and develop the local establishments by which village records and agricultural statistics are maintained, and so to acquire a stable basis of ascertained fact before scientific inquiry was undertaken on an extensive scale. Considerable progress has now been made in the carrying out of this policy; and in recent years it has been found possible to undertake measures for the organization and improvement of the machinery for agricultural inquiry, and for

by schools of any religion. It may be added that the large endowments left by former native rulers for the up-keep of Hindu and Muhammadan worship have been scrupulously maintained by the British Government.

the development of the industrial and economic resources of the country. This policy, so far as it has up to the present time been developed, embraces many fields of inquiry, in which the work of investigation is carried out by various subordinate departments working under the general direction and control of the Department of Revenue and Agriculture. Some of these departments, though not all, were transferred to the Department of Commerce and Industry in 1905. The Survey department carries on geographical, topographical, and scientific surveys, and in some Provinces the cadastral survey which forms the basis of the land revenue assessment. The Meteorological department, in addition to meteorology proper, undertakes solar and astronomical observations. The Botanical Survey deals with systematic and physiological botany and the economic and agricultural uses of plants. The conduct of inquiries and experiments for the improvement of agricultural methods is entrusted to an Inspector-General of Agriculture, assisted by a staff of experts who work in consultation with the Directors of Agriculture in the several Provinces. Measures for the improvement of the breeds of horses[1], ponies, mules, and cattle, and for the prevention of horse and cattle disease, are entrusted to the Civil Veterinary department, whose officers are distributed among the Provinces. There is a fully equipped bacteriological laboratory, and several schools and colleges for the training of native veterinary assistants. The Forest department provides an efficient system of conservancy in the large Government forests. The administration of the forests in each Province is in the hands of the local authorities; but the Supreme Government, assisted by an Inspector-General, has a large share in developing the system and principles upon which the science of forestry is practically applied.

The Finance Department.

The Finance Department deals with the general administration of Imperial and Provincial finance; with questions relating to the salaries, leave, and pensions of public officers; and with currency and banking. It supervises and controls most of the sources of 'separate revenue'—opium, salt, stamps, excise, and assessed taxes, though the local management of these is generally in the hands of the subordinate Governments; and it administers the Mint. A separate branch, styled the Military Finance department, has been constituted to control the Military Accounts department, and to deal with all matters concerning the financial administration of the army. As

[1] Horse-breeding for army purposes in Northern India and Bombay is now carried on under the supervision of the Army Remount department.

already stated, expenditure on the ordinary Provincial services, and a corresponding share of the general revenues, have been made over, within certain limits, to Local Governments; but the expenditure connected with the army, the public debt, and other Imperial objects is directly controlled by the Supreme Government. One executive department manages the civil accounts of both the Supreme and the Provincial Governments. At the head of this department is the Comptroller and Auditor-General, in whose office all the accounts of the country are brought together and compiled. Subordinate to him are the Provincial Accountants-General, who keep the accounts of Imperial receipts and expenditure within their Provinces, and also the accounts of the Local Governments. At the head-quarters of each District is a Government treasury, which receives the revenues and makes local payments. The Public Works accounts are kept by a separate department, which is to some extent under the supervision of the Comptroller-General and is attached to the Public Works Department. The Comptroller-General is also the Head Commissioner of Paper Currency, and in this capacity exercises functions similar to those performed by the Bank of England. The Government of India has Mints at Calcutta and Bombay in which silver and copper pieces are struck, and in which coinage is also undertaken for some Native States and certain of the Eastern Colonies.

[Com]merce [and] Indus-[try] De-[part]ment.

The Commerce and Industry Department was formed in 1905, to relieve the ever-increasing pressure of work in the Government of India, and to facilitate the disposal of questions affecting the trade and manufactures of the country by bringing them together under a single Department. At the same time a Board of three members was appointed, to which most of the railway business hitherto dealt with in the Public Works Department was transferred. The Commerce and Industry Department deals with such railway matters as are still reserved for the decision of the Government of India, and is the medium of communication between the Government and the Railway Board. It has taken over from the Home Department work connected with the administration of the Factories, Petroleum, and Explosives Acts. Postal business, customs, statistics, printing and stationery, and everything relating to ports, shipping, and trade generally have been transferred to it from the Finance Department. The Post Office is an Imperial department, presided over by a Director-General under whom are the Postmasters-General of the Provinces. In 1905 a scheme was sanctioned for the constitution of a special Customs service,

which will be directly under the Department. The preparation of statistics is controlled by a Director-General of Commercial Intelligence, who has still more important functions as an intermediary between the Department and the mercantile public. Other functions directly connected with trade are the administration of the Merchandise Marks Act for the protection of trade marks and descriptions, and the various Merchant Shipping Acts. The branches transferred from the old Public Works Department include telegraphs and collieries. The Telegraph service is an Imperial department, managed by a Director-General directly subordinate to the Commerce and Industry Department. The Revenue and Agriculture Department has made over to it all labour questions, including the regulation of emigration to foreign countries and to the tea districts of Assam; the control of the expert mining staff, which provides for the inspection of mines and secures due compliance with the requirements of the law in regard to their working and the safety of the miners; matters relating to geological inquiries, economic products and arts; and the administration of the Patents office.

The Legislative Department. The Legislative Department, which may be said to correspond to some extent with the office of the Parliamentary Counsel in England, is responsible for all matters connected with the conduct of legislation in the Council of the Governor-General, including the drafting of enactments and the publication and revision of the statute book, and through it legislation in the Councils of the Local Governments is supervised and guided. It assists the other Departments of the Government of India with advice on questions of legal construction and principle, and it has to be consulted before any statutory rules having the force of law are issued.

The Public Works Department. Since 1905, all business connected with Public Works (excluding railways) has been dealt with by a Secretary under the member in charge of Revenue and Agriculture. The superior engineering establishment is divided into two services, Imperial and Provincial. The former has hitherto been recruited mainly from the Royal Indian Engineering College at Cooper's Hill and from the corps of Royal Engineers; the latter from the Roorkee and other engineering colleges in India and from the upper subordinate staff. The establishment employed on irrigation, and on buildings and roads (including miscellaneous works), is subdivided by Provinces and is under the Local Governments. The main roads are usually in charge of the Provincial Public Works departments, and local roads are made and repaired by

municipalities and local boards. An Accounts branch audits and compiles the entire Public Works expenditure, and is recruited partly in Great Britain and partly in India.

y and tary ly art- s.

Supreme authority over the army is vested in the Governor-General-in-Council, and the chief executive officer is the Commander-in-Chief in India. There were formerly separate armies for the Bengal, Madras, and Bombay Presidencies; but as India developed into a united country with a central Government, this system became more and more inconvenient, and was gradually modified, and at last abolished by an Act of Parliament passed in 1893 and carried into effect in 1895. Up to 1906 all Government business connected with the Army, the Volunteers, and the Royal Indian Marine was transacted through the Military Department, corresponding in a certain measure to the War Office in England. In that year important changes were made in the administration, and the Military Department was replaced by the two Departments of Army and Military Supply. The former of these is in charge of the Commander-in-Chief, and deals with cantonments, volunteers, and all matters concerning the army, except business allotted to the Department of Military Supply. The latter disposes of matters connected with the procuring and custody of stores, ordnance, and remounts, besides administering the Indian Medical Service, the Royal Indian Marine, and Marine Surveys. All officers of both Secretariats, and the departments attached to them, belong ordinarily to the army. In addition to his control of the Army Department, the executive business of the army is primarily the province of the Commander-in-Chief, the principal officers of whose staff are the Chief-of-the-Staff, the Adjutant-General, the Quartermaster-General, and the Principal Medical Officer of His Majesty's Forces. The army is at present distributed into five great territorial divisions, namely, the Northern, Eastern, and Western Commands (each under a Lieutenant-General), and the Burma and Southern India divisions[1]. Each division is again divided into brigade commands, while the actual quartering of the troops is in stations which vary greatly in size and importance. These stations, or cantonments as they are called in India, are specially governed by the 'Cantonments Act,' which is administered by a staff of military cantonment magistrates who, in all military or executive matters connected with the troops, are under the officers commanding the stations.

[1] It is proposed to attach the Southern India (Secunderābād) division eventually to the Eastern Command.

The Provinces.

British India, or the territory under the control of the Governor-General-in-Council, is divided into eight large Provinces and five lesser charges, each of which is termed a Local Government. The eight major Provinces are the old Presidencies of Madras and Bombay; the five Lieutenant-Governorships of Bengal, the United Provinces of Agra and Oudh, the Punjab, Burma, and Eastern Bengal and Assam; and the Chief Commissionership of the Central Provinces. The minor charges are the North-West Frontier Province, British Baluchistān, Coorg, Ajmer-Merwāra, and the penal settlement of the Andaman Islands. The Provinces of Madras and Bombay comprise the territories which were originally attached to those Presidencies. Sind was added to the latter Province a short time after its conquest in 1843. The splitting up of the Presidency of Fort William into the Provinces of Agra (styled the North-Western Provinces) and Bengal, each under a Lieutenant-Governor, has already been mentioned. The Punjab, after its annexation, was first governed by a Board of administration and afterwards by a Chief Commissioner. After the Mutiny, Delhi and the neighbouring country was transferred to it from the North-Western Provinces, and it became a Lieutenant-Governorship in 1859. On the annexation of Oudh in 1856 a Chief Commissioner was placed at the head of the executive government, and in 1877 this charge was merged in the Lieutenant-Governorship of the North-Western Provinces. The latter name had become meaningless after the annexation of the Punjab, and the official title of this part of India has recently been changed to the 'United Provinces of Agra and Oudh.' Burma was the next to be created a Lieutenant-Governorship. Arakan, Tenasserim, and Pegu were at first ruled by separate Commissioners under the immediate control of the Government of India. In 1862 they were amalgamated into the Province known as British Burma and placed under a Chief Commissioner. Upper Burma was added to the Chief Commissionership on its conquest in 1886, and the whole Province was thenceforward styled Burma, and was raised to the status of a Lieutenant-Governorship in 1897. The Central Provinces were formed into a separate administration, under a Chief Commissioner, in 1861, by detaching the Saugor and Nerbudda territories from the North-Western Provinces and uniting them to the districts which had lapsed on the death of the Rājā of Nāgpur in 1854. Assam, on its annexation in 1826, was added to Bengal; in 1874 it was detached and placed under a

Chief Commissioner. In 1905 Assam, with a large portion of Bengal, was constituted a new Lieutenant-Governorship, under the style of 'Eastern Bengal and Assam.' The North-West Frontier Province was created in 1901. It comprises certain Districts which were detached from the Punjab in order that the Government of India might exercise more direct control over the frontier questions to which they give rise, with a number of adjoining border tracts over which our direct influence has been extended since 1892. British Baluchistān was formed into a Chief Commissionership in 1887. The petty principality of Coorg, annexed as already stated in 1834, is administered by the Resident in Mysore. The Agent to the Governor-General in the Rājputāna States is Chief Commissioner of the small British territory of Ajmer-Merwāra, the greater part of which was obtained by cession from the Mahārājā Sindhia in 1818. The Superintendent at Port Blair, which has been a convict settlement since 1858, is also Chief Commissioner of the Andaman and Nicobar Islands. Berār (formerly known as the Hyderābād Assigned Districts) still appertains to the Nizām, but has been administered by the British Government through the Resident at Hyderābād since 1853, and was recently taken over on a perpetual lease, the Nizām receiving an annual payment of 25 lakhs from its revenues. Since October, 1903, it has been attached, for administrative purposes, to the Central Provinces.

All the Local Governments alike are under the superintendence and control of the Governor-General-in-Council. They must obey orders received from him, and they must communicate to him their own proceedings. This subordination is derived partly from Act of Parliament, and partly from the delegation of authority by the Governor-General to Lieutenant-Governors and Chief Commissioners. But each Local Government, including a Chief Commissioner, is the executive head of the administration within the Province; and important differences exist between the status of the several classes of Local Governments. By custom, all appointments to Local Governments, except that of a Chief Commissioner, are for a term of five years.

The two Provinces of Madras and Bombay occupy a superior position, as representing the old Presidencies[1] of the same name, which were once altogether independent of Bengal. The civil administration of each is vested in a Governor-in-

[1] The term 'Presidency' is still used in official documents. In common usage, it is frequently applied to the seat of government, including Calcutta.

Council, whose powers and duties are regulated by Act of Parliament. The Governor is appointed by the Crown, being usually a person of rank and experience in England. The Council consists of two members, likewise appointed by the Crown, who must have served for at least twelve years in India, and who always belong to the Indian Civil Service. In Bombay one member is usually, but not of necessity, chosen from the judicial branch of the service. The Governor possesses the same power as the Governor-General to overrule his Council in cases of emergency, and the distribution of business follows the same general plan as in the Council of the Governor-General. So long as separate Presidency armies were maintained, the Commanders-in-Chief at Madras and Bombay were also members of Council. But on the amalgamation of the Indian army in 1895, consequent on a statute passed two years earlier, this adjunct of the Councils disappeared, and the Governors-in-Council lost the direct functions of military government which they had before enjoyed. They still retain the right of communicating direct with the Secretary of State. Another privilege of the Governors is that they are extraordinary members of the Governor-General's Council, if meetings of that Council should happen to be held within their Presidency. Like the Governor-General, they are addressed as Your Excellency, and they are escorted by a body-guard. The maximum salaries, as fixed by Act of Parliament, are Rs. 1,20,000 for a Governor, and Rs. 64,000 for a member of Council.

Lieutenant-Governorships.

All the other Provinces may be regarded as fragments either of the old Bengal Presidency, or of territory at some time under the direct administration of the Governor-General. But those under a Lieutenant-Governor have a status somewhat different from those under a Chief Commissioner, being constituted under Act of Parliament. With the rapid growth of British dominion, it was early recognized that the effective administration of the newly-acquired territories annexed to Bengal was beyond the powers of the Bengal Government, especially when that government was responsible for superintending the administration of the whole of India. Accordingly, the Charter Act of 1833, which altered the style to Governor-General *of India*, directed the creation of a new Presidency of Agra, to be administered by a Governor-in-Council, and also empowered the Governor-General to appoint one of the members of his own Council to be Deputy-Governor of Bengal. The new Presidency of Agra was never fully constituted, chiefly

because of financial difficulties; and two years later an amending Act empowered the Governor-General to appoint instead a Lieutenant-Governor for the North-Western Provinces, and to declare and limit his authority. A similar procedure was proposed in the next and last Charter Act (of 1853), which authorized the constitution of Bengal into a separate Presidency, under a Governor, and also the creation of one new Presidency, but provided that in each case a Lieutenant-Governor might be appointed in the meantime. It is under this statute that the Lieutenant-Governorship of Bengal was created in 1854, and the Chief Commissionership of the Punjab raised to a Lieutenant-Governorship in 1859. Fresh powers to constitute Lieutenant-Governorships were given by the Indian Councils Act of 1861, which enables a Legislative Council to be created for any Province not already possessing a Council, and a Lieutenant-Governor to be appointed to such Province. Under this statute the Chief Commissionership of Burma was raised to a Lieutenant-Governorship in 1897, and the new Lieutenant-Governorship of Eastern Bengal and Assam was constituted in 1905. Lieutenant-Governors are appointed by the Governor-General, subject to the approbation of the Crown. They must have served for at least ten years in India. The extent of their authority may be declared and limited by the Governor-General-in-Council, with the sanction of the Secretary of State. Their maximum salary (Rs. 1,00,000) is fixed by Act of Parliament.

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Chief Commissioners stand upon a lower footing, being delegates of the Governor-General-in-Council, appointed without any reference to Act of Parliament. In theory the whole of British territory in India, which is not within the Presidency of a Governor-in-Council or the Province of a Lieutenant-Governor, is under the immediate authority and management of the Governor-General-in-Council, who is competent to give all necessary orders and directions respecting its administration. A Chief Commissioner, therefore, is regarded as administering his Province on behalf of the Governor-General-in-Council, who may resume or modify the powers that he has himself conferred. In early times the title given to such a delegate of administrative functions was Commissioner, as in the case of Mountstuart Elphinstone when appointed to administer the territories in the Deccan conquered from the Peshwā in 1818. The style of Chief Commissioner[1] was first

[1] This style was apparently adopted to distinguish the head of the administration from the Financial and Judicial Commissioners who were

used in 1853, when John Lawrence was appointed head of the executive government in the Punjab, in substitution for the former Board of administration under a President. On the annexation of Oudh in 1856 the administration was similarly entrusted to a Chief Commissioner; and shortly after the Mutiny the Central Provinces (in 1861) and British Burma (in 1862) were organized on the same basis. More recently, recourse has been had to an Act of Parliament (of 1854), which empowers the Governor-General-in-Council, with the sanction of the Secretary of State, to take any territory in British India under his immediate management, and then provide for its administration. It was under this statutory provision that Assam was separated from Bengal in 1874, and the North-West Frontier Province from the Punjab in 1901. However constituted, a Chief-Commissionership is a Local Government; and though the Governor-General does not divest himself of any of his inherent powers, the Chief Commissioner is, according to Indian law, the person authorized to administer executive government. Parliament has expressly recognized Chief-Commissionerships in the Act of 1870, which empowers a Governor-in-Council, a Lieutenant-Governor, or a Chief Commissioner to propose draft regulations for 'scheduled' districts. Chief Commissioners are appointed by the Governor-General, with no statutory restrictions on his discretion. In practice, the powers entrusted to the Chief Commissioner of the Central Provinces are as wide as those exercised by a Lieutenant-Governor, the main distinction being the absence of a Legislative Council. The salary of a Chief Commissioner is Rs. 50,000; but in the case of the Central Provinces, this has recently been raised to Rs. 62,000, in consideration of the addition of Berār to his Government.

Regulation and non-regulation Provinces.

The evolution and existing functions of the Indian Legislatures will be dealt with in a separate chapter. But it must be noted here that the original method of legislation, up to 1834, was by Regulations issued by the executive Councils of Fort William, Fort St. George, and Bombay. Some of the early Regulations were in many respects complicated and intricate, and it was soon realized that they were not suited to all the Indian races. The various territories subsequently embodied

appointed at the same time. The title of Commissioner was appropriated to subordinate officers in charge of considerable areas or Divisions subdivided into Districts.

in the North-Western Provinces were, on their annexation, included in the Bengal Presidency and governed under the Bengal code; but the less advanced Provinces acquired at a later time were generally ruled in accordance with simpler codes, based on the spirit of the Regulations but modified to suit the circumstances of each special case. The Provinces were thus distinguished into 'regulation' or 'non-regulation,' in accordance as they were originally administered under Regulations framed under the Charter Acts or under the less formal codes[1]. But, with development in material progress and in legislative activity, the distinction between the more advanced non-regulation Provinces and their regulation sisters has practically disappeared, except as regards certain differences in administrative arrangements which will be explained in the next chapter; and so far as legislation is concerned the contrast is no longer between the old regulation and non-regulation areas, but between backward tracts for which the Government of India can still legislate executively and the rest of British India where the machinery of a Legislative Council is required[2].

The Home Government.

It has already been stated that the affairs of the East India Company were originally managed in England by the Court of Directors and the General Court of Proprietors. The Regulating Act of 1773 did not interfere with this system, but made some alterations in the voting qualifications of the Proprietors and in the tenure of office of the Directors, who were to hold office for four years, one-fourth being renewed annually. The subsequent controversies which centred round the administration of Warren Hastings convinced the nation that it was essential for the state to assume the supervision of Indian affairs. Pitt's Act of 1784 established a Board of Control, with full power and authority to direct all operations and concerns relating to the civil and military government and revenues of India. The Board was to consist of not more than six Privy Councillors, including one of the Secretaries of State and the Chancellor of the Exchequer. The number was gradually reduced, and the Board's powers were virtually exercised by its President (the lineal precursor of the Secretary of State for India), who after 1841 was the sole member. The Board was given ample powers for the control of the Company's

The Board of Control.

[1] The regulation Provinces are Bengal, Madras, Bombay, and Agra.

[2] See chap. v, Legislation and Justice.

administration. It had full access to the records and correspondence of the Court of Directors, and was supplied with copies of all dispatches to and from India. No order could be sent to India without being first submitted to the Board, which had power to make any alteration it deemed fit. The Board also had the power of requiring the Directors to prepare dispatches on any specified subject, and (in case of default) of ordering the Directors to send out to India in their name any dispatches drawn up by the Board itself. A Secret Committee of the Court of Directors (consisting in practice of the Chairman and Deputy Chairman) was bound to transmit, as from itself, all 'secret' orders issued by the Board. In like manner 'secret' dispatches from India were received by the Secret Committee and delivered to the Board without being seen by the other Directors. These regulations transferred the substance of authority from the Company to the Crown; but as all orders still purported to issue from the Court of Directors, the importance of the change escaped general recognition. The fact that the initiative remained with the Directors left to them considerable influence in the conduct of ordinary affairs. Patronage continued to be vested in the Court, though its nomination of Governors-General, Governors, and Commanders-in-Chief had to receive the approval of the Crown[1]. So long also as the Company retained any commercial powers, these were exercised without any reference to the Board of Control.

The Governor-General-in-Council was forbidden, without the express authority of the Court of Directors or of the Secret Committee, to make war except for the protection of our own territories and those of our allies, or to make fresh treaties guaranteeing the integrity of any Native State. It was the practical ignoring of these provisions by Lord Wellesley, under the stress of circumstances, which caused so much friction between himself and the Directors.

Transfer of the government to the Crown.

This dual system of government, which vested large powers in the Court of Directors subject to the supreme authority of the Board of Control, lasted until 1858. For some time previously the anomaly of the system had been recognized, and it was felt on all sides that a change was inevitable, though the Company fought hard for its privileges. The Charter Act of 1853, when renewing these privileges for the last time,

[1] The Court of Directors could moreover recall these officers at its discretion, and exercised this power in the case of Lord Ellenborough, despite the disapproval of the Board of Control.

enacted that they should continue only 'until Parliament shall otherwise provide,' instead of for a fixed term of twenty years, as on former occasions. It was, however, the catastrophe of the Mutiny which enforced the conviction that the administrative functions of the Company must cease to exist, and that the Sovereign must stand forth as the sole source of government, both in India and in England. The legislative measures required to accomplish this change are contained in the Act of 1858, which transferred the government, territories, and revenues from the Company to the Crown, declared that India was to be governed by and in the name of the Sovereign, authorized the appointment of an additional Principal Secretary of State, and created the Council of India. Immediately on the passing of this Act, Queen Victoria issued a Proclamation 'to the Princes, Chiefs, and People of India,' notifying that she had taken upon herself the government before administered in trust for her by the Company [1], appointing the Governor-General (Lord Canning) to be her first Viceroy, and announcing her acceptance of all treaties and engagements made by the Company with the Native Princes of India. A further recognition of this transfer of government, and of the peculiar position held by the Crown in India, was made in 1876, when the Sovereign was empowered by Act of Parliament to make an addition to the royal style and title appertaining to the 'imperial' crown. Queen Victoria thereupon assumed the title of Empress of India, and a proclamation to that effect was made in a Darbār held at Delhi on January 1, 1877. Since that time it has been customary in India to use the style 'Queen-Empress' and 'King-Emperor,' though there appears to be no definite authority for the practice.

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Under the Act of 1858, the Secretary of State is the constitutional adviser of the Crown in all matters relating to India. He is appointed, like other Secretaries of State, by the delivery to him of the seals of office. He inherits generally all the powers and duties which were formerly vested either in the Board of Control or in the Company, the Directors, and the Secret Committee in respect of the government and revenues of India. He has the power of giving orders to every officer in India, including the Governor-General, and of directing all the business relating to the government of India that is transacted in the United Kingdom. Every order or communication sent

[1] The territories under the government of the Company had already been declared to be held in trust for the Crown in the preamble to the Charter Act of 1833.

to India must be signed by him, or in his absence by some other Secretary of State[1], and every dispatch from India must likewise be addressed to him. Of these wide powers and duties many rest on his personal responsibility; others can be performed only in consultation with the Council, and for some of these the concurrence of a majority of members of Council is required. The Secretary of State may act without consulting the Council in all matters where he is not expressly required by statute to act as 'Secretary of State *in Council*.' In particular, appointments by the Crown are made on his advice. In the ordinary course business not specially reserved is conducted in consultation with the Council, and with the active assistance of its members, subject to his general direction. Every official communication proposed to be sent to India must be laid before Council, unless it falls under either of two reserved classes. One of these is the class of communications which were formerly required to be sent to India, by the authority of the Board of Control, through the Secret Committee of the Court of Directors, and these are consequently still known as 'secret' communications. They are concerned chiefly with the making of war or peace, negotiations with foreign powers, and relations with Native States. All such papers, whether proposed to be sent to India or received from India and marked 'secret,' may be withheld altogether from the knowledge of Council. The other class of communications which the Secretary of State may send to India on his own responsibility are those which he may decide to be 'urgent'; but he is required to place on record his reasons for such decision. No matter for which the concurrence of a majority of Council is necessary can be treated as either 'secret' or 'urgent.' In ordinary business, for which the concurrence of a majority of Council is not required, the Secretary of State is not bound to follow the advice of the Council. Of the matters for which the concurrence of a majority of members of Council present or voting at a meeting is expressly required, by far the most important is the making of any grant or appropriation of the revenues of India, for expenditure in India and elsewhere. In practice, a general authority is delegated to the Government of India to sanction any new appointment the pay of which does not exceed Rs. 250 a month, and any revision of establishment which

[1] In constitutional theory, the five Principal Secretaries of State form a single office, and consequently each one of them is competent to perform the functions of any of the others.

does not involve an additional expenditure of more than Rs. 25,000 a year.

The Council of India.

The Council of India, as originally constituted by the Act of 1858, consisted of fifteen members, of whom eight were to be appointed by the Crown and the remainder elected by the Court of Directors from among themselves. The tenure of office was 'during good behaviour,' and future vacancies among elected members were to be filled by election by the Council. This constitution has been amended by subsequent legislation. All the members are now appointed by the Secretary of State; the ordinary term of office is for ten years, which may be extended for a further term of five years 'for special reasons of public advantage'; the number of members may be reduced to ten[1], at the discretion of the Secretary of State; at least nine of the members must have served or resided in India for ten years and must not have left India more than ten years before their appointment; a member is disqualified from sitting or voting in Parliament. The Secretary of State has a special power of appointing not more than three members, 'having professional or other peculiar qualifications,' to hold office for an unlimited term; but this power has not been exercised for many years.

The function of the Council is to conduct, under the direction of the Secretary of State, the business transacted in the United Kingdom in relation to the government of India and the correspondence with that country. The Council must meet at least once in every week, and five members must be present to constitute a quorum. The Secretary of State is President, with power to vote and give a casting vote; and he may appoint a Vice-President[2] to exercise his powers in his absence, but all acts done in his absence require his sanction in writing. Every official communication proposed to be sent to India, except those reserved as 'secret' or 'urgent,' and every order relating to India which is proposed to be made in the United Kingdom, must either be submitted to a meeting of Council, or else must be placed for seven days on the Council table for the perusal of members before being issued. The Council have a similar right to see every official communication received from India, except such as are marked 'secret.' In financial matters, as already mentioned, and in a few other less important cases, no action can be taken without the concurrence of a majority of

[1] At present (1906) the number of members of Council is *eleven*.

[2] Each member of Council, in order of seniority, is customarily appointed to serve for a year as Vice-President.

the members of Council present or voting at a meeting. In all other cases, where the Secretary of State is not bound to defer to the opinions of the Council, the necessity for consulting it serves mainly as a guarantee for deliberation. For the more convenient transaction of business the Secretary of State is empowered to divide the Council into committees, and to arrange what departments of business shall be transacted by the several committees, under his own general direction. The existing committees of Council are seven in number, entitled—Finance, Political, Military, Revenue and Statistics, Judicial and Public, Public Works, and Stores.

The establishment of the India Office.

The Act of 1858 further authorized the creation of the establishment of the Secretary of State in Council, commonly known as the India Office. The original members of the establishment were taken over from the Board of Control and the East India House. Their number and their salaries were subsequently fixed by an Order in Council, required to be laid before Parliament; and no variation can be made except by the same procedure. The Secretary of State, in virtue of his office, has two Under-Secretaries, one permanent and the other parliamentary, to whom some of his minor duties are delegated. There is, in addition, an Assistant Under-Secretary, who is also Clerk of the Council. For each department of business, corresponding to the committees into which the Council is divided, there is a Secretary and Assistant-Secretary, with a staff of clerks. The Store Department is under a Director-General. Other departments are those of the Accountant-General, the Registrar and Superintendent of Records, and the Director of Funds. The Medical Board for the examination of officers of the Indian services, the Legal Adviser and Solicitor to the Secretary of State, and the Librarian may also be mentioned. Appointments to the establishment are made by the Secretary of State in Council; but 'junior situations' must be filled in accordance with the general regulations governing admission to the Home civil service. Somewhat outside the establishment stands the Auditor, whose appointment by the Crown must be countersigned by the Chancellor of the Exchequer, and who nominates his own assistants. But the salary of the Auditor and his assistants, as well as the salaries, pensions, and other charges of the entire establishment of the India Office, are defrayed from the revenues of India.

Control of Parliament.

Parliament is supreme over India, as over all the dominions of the British Crown. Apart from those attributes of sovereignty which are derived from the royal prerogatives

or which may have been inherited from the Mughal empire, the general constitution of the government, both in India and in England, has been created and regulated by Act of Parliament. The functions of the Governor-General, especially in relation to his Council and his control over the subordinate Presidencies, the powers of all local legislatures and the restrictions on those powers, the constitution and jurisdiction of the several High Courts, the very existence of the Secretary of State and his Council—all alike are based upon statutory enactments. Certain general statutes apply to India, even when India is not specifically mentioned. But in the ordinary course the legislation of Parliament for India is confined to Acts amending the political constitution and Acts empowering the Secretary of State to raise money by loan. The revenues of India are not under the control of Parliament, though they may not be applied to defraying the expenses of military operations beyond the frontier without the consent of both Houses, except for preventing or repelling actual invasion or under other sudden and urgent necessity. Inasmuch as the Home charges are entirely defrayed from the revenues of India, the salary of the Secretary of State and the expenses of his establishment are not included in the annual estimates voted by the House of Commons. It is, however, provided that detailed accounts of receipts and disbursements, in India and in England, shall be laid before Parliament annually, together with a report exhibiting the moral and material progress of the country. The Home accounts are further subject to examination by an independent Auditor, whose report has likewise to be presented to Parliament every year. Finally, in accordance with constitutional practice, the Secretary of State, as a minister of the Crown, is responsible to criticism, and if occasion should arise to censure, in either House of Parliament; and this responsibility is shared with the Cabinet, of which he is always a member.

e Indian il vice.

Mention has already been made of the writers, factors, and merchants of the East India Company, of whom the Indian Civil Servants of to-day are the direct descendants. Neither their training nor their pay was adequate to the administrative work which, from the time of Clive onwards, they were called on to perform. Clive and Warren Hastings both introduced measures for the reform of the administration, but to Lord Cornwallis is due the honour of having reorganized the service

on a footing worthy of its task. By the influence of his own upright character, and by the establishment of a liberal scale of salaries, in substitution for the official pittances which had previously been augmented from the profits of permitted private trade and sometimes by more questionable means, he succeeded in establishing that high standard of integrity which is essential to the good government of the country. Nominations to the Covenanted Civil Service were made by the Directors; and the Charter Act of 1793 reserved to that service, as a precaution against jobbery, the principal civil offices in India under the rank of member of Council. The service came to be called the 'Covenanted Civil Service' from the covenants into which its members were required to enter, and by which they bound themselves not to trade, not to receive presents, to subscribe for pensions, and so forth. In contradistinction to the covenanted civilians all other civil servants were said to belong to the 'Uncovenanted Service,' but these terms have become obsolete.

In 1800 Lord Wellesley established a college at Fort William for the instruction of young civil servants on their arrival in India. The Court of Directors did not approve of Lord Wellesley's college; and in 1805 they established a college of their own, at Haileybury near Hertford, at which nominees for the civil service had to go through a two years' course of special training before proceeding to India. Nominations to the Covenanted service remained in the gift of the Directors until 1853, when the right was withdrawn by Act of Parliament and the appointments were thrown open to public competition. The first examination was held in 1855, and in 1858 the college at Haileybury was closed. The limits of age, and other subsidiary conditions of the competitive examination, have been changed from time to time, but it has always remained open to all natural-born subjects of the Crown. The age limits are at present from twenty-one to twenty-three [1], and the selected candidates undergo a year's special training in England, which they are encouraged by the grant of an allowance to spend at a University. On arrival in India, the young civilian is posted to the head-quarters of a District to learn his work, and is given the powers of a magistrate of the lowest class. After passing the prescribed examinations, mainly in law, languages, and revenue procedure, he becomes a first-class magistrate and is eligible for promotion to higher

[1] The age limits will be from twenty-two to twenty-four with effect from 1906.

grades. The Act of 1793, which reserved the principal civil appointments to the Covenanted Civil Service, was not applied to the non-regulation Provinces, and even in the regulation Provinces public exigencies occasionally required outside appointments to be made. The Indian Civil Service Act of 1861 legalized these irregular appointments, and scheduled the posts which were in the future to be reserved to covenanted civilians. This statute is still in force, but it has been modified in one important particular which will shortly be explained.

It is not always fully realized to what a large extent the administration of India is conducted through the agency of natives of the country, and how small is the number of European officials. Roughly speaking, about 1,200 Englishmen, including military officers and others, are employed in the civil government of 230,000,000 people and in the partial control of 60,000,000 more[1]. In the time of Lord Cornwallis the native agency was notoriously inefficient and corrupt, and his reorganization of the public service entrusted all offices of importance to Europeans. The spread of education, and the example and control of British officials, have worked a change in the native civil service which is one of the most satisfactory results of British rule. With the growth of their efficiency and probity the natives of the country have been given an ever-increasing share in the task of government, and they now fill by far the greater number of the executive, magisterial, and judicial posts. The change has been brought about in several ways. With the development of the country and the advance of civilization the administrative staff has of necessity been greatly increased. These new posts have fallen in the great majority of cases to natives of the country; and the proportion of Europeans, except in the highest branches of control, has

[1] Excluding the 864 civil charges ordinarily held by members of the Indian Civil Service, 'and excluding also all posts of minor importance, nearly all of which are held by natives, there are about 3,700 persons holding offices in the superior branches of the executive and judicial services, and among them there are only about 100 Europeans. . . . Native officers manage by far the greater part of the business connected with all branches of the revenue and with the multifarious interests in land. Natives dispose of the greater part of the magisterial work. The duties of the civil courts throughout India, excepting the courts of appeal, are almost entirely entrusted to native judges. . . . With possibly the exception of England, there is no country in Europe in which judicial and executive officers receive salaries equal to those given in the (superior) Native Civil Service of India.' Sir J. Strachey, *India* (3rd edition), pp. 83-4.

been reduced until their numbers have become relatively insignificant. This change was expedited by a rule, adopted in 1879, that appointments made in India carrying a salary of Rs. 200 a month and upwards should ordinarily be reserved to natives of India[1], and that no appointment might be made in contravention of this rule without special sanction. And while Europeans have thus been excluded from all appointments except those specially reserved to them, the natives of the country have been admitted to a considerable share in the higher offices. The introduction of the competitive system in 1855 threw the Indian Civil Service open to them; but owing to the religious and other difficulties attendant on a voyage to England, the number of Indians who have entered the service by this means has been neither large nor representative of India generally. Accordingly, an Act of Parliament passed in 1870 provided that duly selected natives of India should be eligible for any of the offices heretofore reserved to the Indian Civil Service. The regulations for giving effect to this Act were the subject of prolonged correspondence and were not issued until 1879. They established what was called the 'Statutory Civil Service.' The principal features of the scheme were nomination by the Local Governments, subject to the approval of the Government of India and the Secretary of State; employment of the selected officer within his own Province; and the ultimate transfer of one-sixth of the total number of Indian Civil Service appointments to the Statutory Civilians. The new system, however, failed to prove a success. The higher classes did not as a rule come forward, and many of the candidates chosen were young men who, but for this opportunity, would have been content to enter the subordinate service. During the seven years following the introduction of the system about sixty persons were appointed under it. It was then abandoned in favour of the plan proposed by the Public Service Commission which sat in 1886–7 under the presidency of Sir Charles Aitchison, at that time Lieutenant-Governor of the Punjab. On the advice of this Commission the Civil Service was divided into three branches: the Indian Civil Service, recruited in England; and the Provincial and Subordinate services, recruited in India from among natives of India. The members of the Indian Civil Service are no more numerous than to enable them to fill the majority of the highest offices, with such number of less important posts as provides

The Provincial and Subordinate services.

[1] Natives of India include, for this purpose, persons of European descent born and domiciled in the country.

a course of training for the younger men; the Provincial services, styled the Bengal Civil Service, the Madras Civil Service, and so on, enjoy the remainder of the important executive, judicial, and administrative appointments; and the Subordinate services comprise the holders of minor posts. From the time of the introduction of this system the terms 'Covenanted' and 'Uncovenanted' services were abolished. Admission to the Provincial services is regulated by rules framed by the Local Governments and approved by the Government of India. Sometimes it is by nomination, sometimes by examination, and sometimes by promotion from the Subordinate service. Many of the Provincial and Subordinate service officers are graduates of Indian Universities. The members of the Provincial service are, like the former Statutory Civilians, eligible for offices heretofore reserved for the Covenanted service. Lists of the posts open to them were published in 1892-3: they included ninety-three superior appointments (to which some additions have since been made), such as Collectorships, Deputy Commissionerships, and superior Judgeships in the Provinces to which they belonged. The natives of India have, on the whole, shown greater ability in the discharge of judicial than of administrative functions, and their special talents have been recognized by appointment to some of the highest judicial posts.

Specialized departments.

Another striking change which has taken place in the Civil Service of India is the creation of numerous specialized departments and appointments, which have already been referred to in connexion with the various Departments of the Government of India. When public education and the development of the country were in their infancy, the control of almost all branches of the administration was vested in members of the Covenanted service. After the consolidation of the British power had been effected, and the Government had set itself to the task of improving the administration, educating the people, and constructing roads, railways, and irrigation works, a demand arose for officers of special training and experience of all kinds. Various departments were from time to time created, which now share with the general civil service the multifarious duties which are performed by the Government in India. Among the larger of these services are the Public Works Department, the Survey of India, and the Postal, Telegraph, Education, Police, Salt, Sanitary, Jails, and Civil Medical departments. The same principles regarding the employment of natives which govern the general civil service have been

applied to these other departments. Everywhere the European element, consisting in most cases of officers appointed in England, is confined within the limits essential for efficiency and guidance. The extent to which European agency is employed varies with the nature of the work, being greater where special knowledge and acquirements are needed of which the supply in India is still deficient, or where, as in the case of the Police, a large measure of European control is essential.

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CHAPTER II

ADMINISTRATIVE DIVISIONS

e major ovinces. THE following statement ranges the eight Provinces of India in order of size and shows their area and population, excluding the dependent Native States :—

	Thousands of square miles.	Millions of inhabitants.
Burma	170	9
Bengal[1]	151	75
Madras	142	38
Bombay	123	19
United Provinces	107	48
Central Provinces (including Berār)	104	13
Punjab	97	20
Assam[1]	49	6

Burma is about the size of Sweden, with nearly twice its population, and contains great tracts of forest and jungle. The territories administered by the Lieutenant-Governor of Bengal, though smaller in extent than Burma, contain more than eight times the number of inhabitants and form the most onerous of the Provincial charges. This Province nearly doubles the population of France, though only three-quarters of its size. The United Provinces of Agra and Oudh are almost as densely populated as Bengal, and contain more people than Austria-Hungary in an area less than that of Austria alone. The population of Madras and the area of Bombay approximate to the population and area of the United Kingdom.

ıla- and lation inces. In the last chapter it was explained that the legislative distinction between regulation and non-regulation Provinces has become obsolete. The administrative systems still differ, however, in several particulars; and it will be convenient in the first place to describe the government of the regulation Provinces, and afterwards to explain the special features of the administration of the more recently acquired territories. Madras,

[1] In 1905, Assam, with a large portion of Bengal, was constituted a new Lieutenant-Governorship, under the style of 'Eastern Bengal and Assam.'

Bombay[1], Bengal, and Agra are the four regulation Provinces. The principal non-regulation Provinces are the Punjab, Burma, Oudh, the Central Provinces, and Assam.

The head-quarters offices in regulation Provinces.

As stated in the last chapter, the old Presidencies of Madras and Bombay retain their Governors-in-Council, while Bengal, the United Provinces, and Eastern Bengal and Assam are administered by Lieutenant-Governors. Business is conducted in the executive Councils of Madras and Bombay in much the same manner as in the Council of the Governor-General. The Departments are divided between the Governor and his two colleagues, and important matters are dealt with by the Council collectively. The Governor has the right of overruling his Council in special cases. The Lieutenant-Governors are solely responsible for the administration of their Provinces, and their powers are limited only by the law and the control of the Supreme Government. In all Provinces, as mentioned in the preceding chapter, questions of policy or of special importance are submitted for the orders of the Governor-General-in-Council, and the financial powers of the Local Governments are limited by definite and strict rules. The Secretariats of the Provincial Governments are divided into departments, each under a Secretary with subordinate officers, as in the case of the Supreme Government. Each of the principal departments of the civil service is under the charge of an officer who is attached to and advises the Local Government. Frequent tours of inspection keep him in touch with local work. The principal executive departmental heads, outside the revenue and general administrative departments, are much the same in all the large Provinces. In Bengal they are the Inspectors-General of Police, Jails and Registration, the Director of Public Instruction, the Inspector-General of Civil Hospitals, the Sanitary Commissioner, and the Superintendent of the Civil Veterinary department. There are also Chief Engineers, for Irrigation and Marine and for Buildings and Roads, who are likewise Secretaries to Government. In nearly all the regulation Provinces the revenue departments are administered, under the Government, by a Board of Revenue. In Bengal, and till recently in the United Provinces, the Board consists of two members[2] who are the highest officers in the administrative

[1] Sind, which is a part of the Bombay Presidency, is however a non-regulation area, and its Commissioner has somewhat larger powers than those mentioned below as appertaining to the ordinary Commissioners of Divisions.

[2] A third member was added in 1902 to the Board of the United

branch of the service. In Bengal one of these is at the head of the great department of land revenue, and the other at the head of the departments of excise, opium, income-tax, &c.; and they meet together as a board only for the hearing of certain classes of appeals. The United Provinces Board acts more as a collective body, all important questions being considered by the whole Board. Immediately subordinate to the Board in both Provinces are the Director of Land Records and Agriculture, and the Commissioner of Excise; and, in Bengal, the Collector of Customs and the Opium Agents[1]. In Madras the Board of Revenue has four members, two of whom are Land Revenue Commissioners, one is Settlement Commissioner, and the fourth is Commissioner for Salt, Excise, Income-tax, and Customs. There is no Board of Revenue in Bombay; and the Director of Land Records and Agriculture, and the Commissioner of Customs, Salt, Opium, and Excise, are there immediately subordinate to the Local Government. Law officers are employed by each Local Government to advise it on legal questions and to conduct cases in which it is interested.

-ritorial -isions—-tricts.

The system of administration in both regulation and non-regulation Provinces is based on the repeated subdivision of territory, each administrative area being in the responsible charge of an officer who is subordinate to the officer next in rank above him. The most important of these administrative units is the 'District'; and the most accurate impression of the system may be gained by regarding a Province as consisting of a collection of Districts, which are usually split up into subdivisions and these again into smaller circles.

British India contains more than 250 Districts. The average area of a District is 4,430 square miles, and the average population 931,000. The average District is thus about three-fourths of the size of Yorkshire, and its inhabitants number considerably more than half the population of that county. The actual Districts vary greatly in size and density of population. For instance, the Upper Chindwin District of Burma has an area of 19,000 square miles and a population of 153,000; Mymensingh, in Bengal, has an area of over 6,000 square miles and a population of nearly 4,000,000; and Vizagapatam, in Madras, has an area of more than 17,000 square miles and a population

Provinces, for a period of four years, mainly for the purpose of dealing with Settlement work.

[1] The production of opium in Bengal and the United Provinces is under the Bengal Board of Revenue, which works in the latter Province through an agent at Ghāzīpur.

of nearly 3,000,000. Among the major Provinces the Districts are largest in Burma and Madras, and smallest in the United Provinces.

Commissioners of Divisions. In Madras there is no local officer above the head of the District. Elsewhere a Commissioner of Division is intermediate between the Collector and the Government or the Board of Revenue. A Division is a group of several Districts, usually from four to six, of which the Commissioner has the general superintendence and in which he also acts as a court of appeal in revenue cases. In the regulation Provinces the Commissioner is always a senior officer of the Indian Civil Service. The Commissioners of the regulation Provinces, when first appointed in 1829, under the government of Lord William Bentinck, exercised judicial as well as administrative and revenue functions, and held periodical jail deliveries in the Districts under their supervision. These judicial duties were eventually transferred to the District Judges.

The Collector-Magistrate. The head of the District is styled in the regulation Provinces Collector and Magistrate. He is the representative of the Government in the large area under his charge; in the eyes of the people he embodies the power of the state or 'Sarkār,' and it is to him that they primarily look to redress their grievances and to promote their welfare. His twofold appellation indicates that he is both the principal revenue official and the chief magistrate. At one time the two offices were separate. Under the system established by Lord Cornwallis in Bengal, which was gradually extended to the other regulation Provinces as they came under British rule, the offices of District Magistrate and Civil Judge were united in the same person, the jail deliveries being made by a court of circuit. Subsequently the duties of the magistrate were separated from those of the judge, and he was vested with limited judicial powers in criminal cases. The Collector dates from the time of Warren Hastings, when the British first took over the fiscal administration of Bengal, Bihār, and Orissa. Many years ago, in the United Provinces, Madras, and Bombay, the magisterial and revenue functions were combined in the same hands, and the same process took place at a later date in Bengal.

Duties of the Collector as such. The Collector is concerned in the first place with the land and the land revenue. The nature of his duties in this connexion varies with the character of the tenure under which land is held. They are specially onerous in Madras and Bombay, where the ryotwāri (cottier) tenure prevails and the

revenue is paid by many thousands of cultivators; they are comparatively light in Bengal, where landlords pay a revenue fixed by Lord Cornwallis's permanent settlement. But even in Bengal there are large government estates which are managed by the Collector, and he also has charge of the private estates held by the Court of Wards in trust for minors and other persons[1]. Apart from the duties immediately connected with the assessment and collection of land revenue and with the village establishments, the Collector is concerned with all matters affecting the condition of the peasantry; he supervises the compilation of the periodical returns of produce and prices; he adjudicates in several Provinces on rent and other disputes between landlord and tenant; and he makes loans on behalf of the Government for agricultural purposes. The Collector has also charge of the local administration of excise, income-tax, stamp duty, and other sources of revenue; and he is responsible for the management of the District treasury, into which the revenue and other public receipts are paid, and from which all local disbursements are made.

Duties of the Collector as District Magistrate.

Magistrates are divided into three classes according to their powers. As a magistrate of the first class the Collector, in his capacity of District Magistrate, can imprison for two years and fine up to Rs. 1,000; but in practice he does not try many criminal cases, though he supervises the work of all the other magistrates of the District. But his magisterial functions extend far beyond the domain of the criminal court. He is responsible for the peace of the District and the suppression of crime, and has general control over the working of the police. He also supervises the management of the District jail in which short-term prisoners are confined, convicts sentenced to long terms of imprisonment being sent to large Central jails, of which there are several in each Province.

Other duties of the Collector.

In addition to these two main departments of work, the Collector has to interest himself in all matters affecting the well-being of the people. In some branches of the administration his functions are, in consequence of the formation of special departments, such as those of Public Works, Forests, Jails, Sanitation, and Education, less direct than was formerly the case. But even in the matters dealt with by separate

[1] In Provinces where there is a Board of Revenue that body acts as Court of Wards. In Burma it has not hitherto been found necessary to establish such a court. In the Punjab the functions of a Court of Wards are discharged by the Financial Commissioner; and in the Central Provinces, and in Bombay (since 1905), by the Divisional Commissioners.

departments his active co-operation and counsel are still needed. The municipal government of all considerable towns is vested in a committee of the inhabitants, who raise taxes and expend the proceeds on roads, sanitation, water-supply, medical relief, education, and other public needs. It is the duty of the Collector to guide and control the working of these municipal institutions. He is also, usually, the Chairman of the District Board which, with the aid of subsidiary local boards, maintains roads, schools, and dispensaries, and carries out sanitary improvements in rural areas with funds derived from local rates. The ordinary day's work of the Collector-Magistrate entails many other miscellaneous duties, which vary in accordance with circumstances and of which it would be difficult to give a complete list. The Government looks to him for information on all important occurrences which take place in his District, he is called on to advise on general schemes which may be under consideration, and he is expected to explain to the people any new orders of the Government which they may not readily understand. In times of stress and difficulty his duties and responsibilities are increased tenfold. If a collision is apprehended between Hindus and Muhammadans, or if an agrarian difficulty is likely to result in outrage, it is to his tact and firmness that the Government looks to prevent violence, and, if necessary, to quell disorder. Should the District be attacked by famine he is responsible for the lives of the people; he must watch minutely, and keep the Government informed of, the progress of events, and must organize and carry out measures of relief. For the proper discharge of his many duties he must be accessible to and intimately acquainted with the inhabitants. This acquaintance cannot be gained at the desk or on the bench, and accordingly the Collector-Magistrate spends several months of the year in camp. During his tours he inspects the working of the various departments with which he is concerned, satisfies himself as to the manner in which his subordinate officers are carrying out their duties, and advises and encourages them in their work. At the same time he gets to know the people of all parts of the District, and they have a ready opportunity of discussing their affairs with him. The local magnates will visit his tent with some ceremony; the village elders will come and chat with him about the prospect of their crops, the assessment of their lands, the opening of a new school, some local quarrel regarding a right of way, the dacoity which occurred in the village during the preceding summer, and the many other details in which the 'Sarkār'

touches their daily life. A Collector of strong and sympathetic character and with the gift of insight may gain the strongest hold over the affections and imagination of the peasantry, and tales of his sagacity and good deeds will be told in remote villages many years after his name has ceased to be borne on the civil list of his Province.

Other District officials.

Two of the most important executive officers of the District are the Superintendent of Police and the Civil Surgeon. The former, who is almost always a European, is responsible for the discipline and working of the police force. In matters relating to the detection and suppression of crime and the peace of the District he is under the control of the District Magistrate, but he is directly subordinate to his departmental head in so far as the internal management of the force is concerned. The Civil Surgeon is (except in Bombay) the head of the medical and sanitary administration of the District as well as of that of the head-quarters town. He supervises hospitals and dispensaries, has charge of the vaccination establishment, and is the adviser of the Collector in all matters connected with the health of the people. He is also, as a rule, in direct charge of the District jail. Another important official is (in Madras and Bengal) the District or Local Fund Engineer, who is a servant of the District Board and looks after its roads and other engineering works. The local organization of Government Public Works, Forests, Education, and other special departments varies in different parts of the country, and the jurisdiction of their principal local officers—Superintending and Executive Engineers, Conservators and Deputy Conservators of Forests, Inspectors of Schools, &c.—does not always correspond with the limits of revenue Districts. Each District has its law officer, styled the Government Pleader, who conducts the prosecution in session trials and sometimes appears for the Government in other cases.

When not on tour the Collector-Magistrate and the other principal officials reside at the head-quarters station, which usually adjoins the principal native town. Here are collected the Government offices and court-houses, thronged on a busy day with a motley crowd of suitors, pleaders, clerks, constables, shopkeepers, and peasants. In the head-quarters town will also be found the principal hospital and the District jail; probably also the largest English school, and perhaps a college affiliated to the University of the Province.

Sub-divisions,

The Collector-Magistrate is aided in his multifarious duties by a large staff of subordinate officers, some of whom are his

tahsīls, and villages.

assistants at head-quarters and others hold charge of portions of the District. In general the Districts are split up into 'subdivisions' under junior officers of the Indian Civil Service, or members of the Provincial Service styled Deputy Collectors, and these again into minor charges bearing different names and held by officers of the Subordinate service. The large Madras Districts contain as a rule four or five subdivisions; in other Provinces the number is usually smaller. In Madras and Bengal the Subdivisional officers reside within their jurisdiction and have court-houses, offices, a sub-treasury, and a sub-jail at their head-quarters; but as a rule the largest subdivision of a Bengal District is directly administered by the Collector. In Bombay and the United Provinces, where the component areas of the subdivisions are subject to alteration, the Subdivisional officers, when not touring through their charges, live at the head-quarters of the District. The Subdivisional officer has, under the control of the Collector, general charge of the executive and magisterial administration of his subdivision. In Madras, Bombay, and the United Provinces there are smaller sub-district units styled *tāluks* or *tahsīls*, and administered by *tahsīldārs* (in Bombay *māmlatdārs*), who belong to the Subordinate service and are assisted in large *tāluks* by deputy or *naib tahsīldārs*. In Madras and Bombay these officers are under the immediate control of the Subdivisional officer. In Bengal the lowest unit is the subdivision, and the Sub-Deputy Collectors assist the Collector and Subdivisional officers but have no separate charge of their own. The area of an ordinary *tahsīl* or *tāluk* is from 400 to 600 square miles: in the United Provinces it is smaller than in Madras or Bombay. In Madras the *tahsīldār* is generally confined to revenue and general work, magisterial duties being performed by a separate officer styled the 'stationary sub-magistrate'; elsewhere the *tahsīldārs* (or officials who occupy a corresponding position) have magisterial as well as revenue functions. The *tahsīldār* is assisted by subordinate officers styled revenue inspectors or *kānungos*, and the village officials, who are largely hereditary, complete the list. The most important of these are the headman, who collects the revenue, and in Madras is also a petty magistrate and civil judge; the *karnam*, *kārkun*, or *patwāri*[1], who keeps the village accounts, registers of holdings, and in general all records connected with the land revenue; and the *chaukīdār* or village watchman, who is the rural policeman. As will be shown in a subsequent chapter, the Indian village

[1] In Northern India one *patwāri* usually serves a group of villages.

organization is of great antiquity, and it still finds its place, with the modifications necessitated by the greater control and complexity of our governmental system, in the fabric of British rule.

Judicial administration.

The judicial administration of the country is described in the chapter on Legislation and Justice, and it will suffice here to mention, in descending gradation, the principal classes of courts in the regulation Provinces. These are :—

(1) For both Criminal and Civil Justice—

(*a*) The High Court, which consists of Indian Civilians, British barristers, and native lawyers.

(*b*) The District and Sessions Courts, manned by Indian Civilians and members of the Provincial Service.

(2) For Criminal Justice only—

(*a*) The Courts of the District Magistrate and his Assistant and Deputy Magistrates, nearly all of whom are, like himself, magistrates of the first class.

(*b*) The Courts of subordinate magistrates, who are of the second and third class, and who as a rule exercise also revenue jurisdiction as *tahsīldārs*, &c., and are, almost without exception, natives of India.

(3) For Civil Justice only—

(*a*) Subordinate Judges' Courts.

(*b*) Courts of District Munsifs.

The Subordinate Judges stand to the District Judge in much the same relation as other magistrates of the first class do to the District Magistrate, while the position of the Munsifs corresponds roughly with that of the subordinate magistracy on the criminal side. Subordinate Judges and District Munsifs are almost invariably natives of India and are frequently recruited from the native bar.

The non-regulation Provinces.

The extent to which the non-regulation system diverges from that just described varies in different Provinces in accordance with their importance and the progress which they have made. The head of the administration is a Lieutenant-Governor in the Punjab and Burma[1], and a Chief Commissioner in the

[1] And, since 1905, also in Assam, which remains 'non-regulation' in the new Province of Eastern Bengal and Assam.

Central Provinces[1]. He governs with the aid of a Secretariat, departmental chiefs, and a gradation of local officers. The superior officers of the general branch of the service form the 'Commission' of the Province. In former times members of the Commission were drawn from a variety of sources, but recruitment is now in general confined to the Indian Civil Service and officers of the Indian Army[2]. It is thus an important point of difference from the regulation system that the higher posts are not wholly reserved to the Indian Civil Service. The executive head of the District is styled 'Deputy Commissioner' and not Collector: those of his subordinates who belong to the Commission are called 'Assistant Commissioners,' and members of the Provincial Service 'Extra Assistant Commissioners.' With the exception of Oudh, which is under the United Provinces Board, none of the non-regulation Provinces has a Board of Revenue. In the Punjab and Burma the functions of the Board are exercised by a single officer called the Financial Commissioner. In the Central Provinces the Commissioners of Divisions and the head-quarters revenue officers are immediately subordinate to the Local Government. The District administration—revenue, general, and magisterial—runs on the same lines as in the regulation Provinces; but the District Magistrates and some of their first-class subordinates exercise more extensive criminal jurisdiction. They may be invested with power to try all cases not punishable with death and to inflict sentences of imprisonment or transportation up to seven years. Moreover, in the less advanced Provinces administrative and judicial functions are frequently combined. Thus in Burma the Commissioner of the Division has hitherto been the Court of Sessions and the principal local Civil Judge, though in some Divisions he is assisted by an additional Sessions Judge. Below his court come in order the District court, the subdivisional court, and the court of the township which corresponds to the *tāluk* or *tahsīl* of India proper. These courts are usually presided over by the executive head of the area which they serve, though in some localities there are separate District Judges. In the Punjab, on the other hand, the system approximates to that in force in the regulation Provinces, save that the judicial functions

[1] Oudh is under the Lieutenant-Governor of the United Provinces of Agra and Oudh; and Sind, as already stated, under the Governor of Bombay.

[2] Recruitment of military officers has been discontinued in the Punjab since 1903, and in Assam since 1906. Burma is thus the only major Province in which military as well as civilian officers are now recruited for the Commission.

considerable Province. Public Instruction in this Province and in Baluchistān is supervised by a single Inspector-General. For judicial purposes the Province is divided into two civil and sessions divisions.

The Province of Baluchistān is made up of (1) British Baluchistān, comprising three Districts; (2) the Agency territories, which consist of districts held on lease; and (3) the Native States of Kalāt and Las Bela. Under the Chief Commissioner is an officer who is both Revenue and Judicial Commissioner.

For the District of Coorg the Resident in Mysore is both Chief and Judicial Commissioner. The highest local authority is the Commissioner, whose duties extend practically to every part of the administration. The internal organization is similar to that of an ordinary British District. Ajmer and Merwāra are administered by a Commissioner under the Agent to the Governor-General in Rājputāna. Each of the small component Districts is managed by an Assistant Commissioner.

The Andaman and Nicobar Islands derive their administrative importance from the circumstance that the Penal Settlement of Port Blair is situated in the former. The Superintendent of the Settlement is also entrusted with the general administration of the islands, and maintains relations with their wild aboriginal inhabitants. He is assisted by a Deputy Superintendent and several Assistants, who form the 'Port Blair Commission.'

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CHAPTER III

THE NATIVE STATES

Introductory.

THE political horizon of the Government of India lengthens out far beyond the external frontiers of British dominion. It maintains the peace and safety of the seas that wash the Indian coasts; it watches the movement of sea-borne trade and the commercial tariffs of its neighbours; it studies the course of events on the borders of Siam, Tongking, China, Russia, and Persia; it protects the rulers of islands and maritime districts in the Persian Gulf and the Arabian Sea; and it maintains a fortified outpost at Aden, surrounded by a belt of protected territory. Its activities and responsibilities in these more distant fields of foreign policy will be dealt with in the next chapter, where also some account will be given of the small French and Portuguese settlements which still exist in India. Here attention will be confined to those States or territories which are not subject to British law, and yet lie within the outer line that the hand of diplomacy has drawn as the boundary of India upon the map of Asia. The countries thus mapped off, whether ruled by single chiefs or tribal organizations, fall under the general designation of the Native States of India, although some of them, such as Nepāl, differ in the measure of independence which they enjoy, and in other material respects, from the principalities of the interior.

Outer limits of the Indian empire.

The diplomatic line which has been mentioned as including all the States of which an account is here given, stretches from Gwetter Bay, in the Gulf of Oman, to the Mekong river, near latitude 22° N. and longitude 101° E. Its extreme point on the north is Povalo Schveikovski on the Taghdumbāsh Pāmir, a little north of 37° N., while its southern limit is Victoria Point (below 10° N.) in the Mergui District of Burma. The principal conventions with foreign powers which have established this international cordon round India are those with Persia in 1871 and 1895; with Afghānistān in 1893 and 1895; with Russia in 1895; with China in 1890, 1894, and 1897;

with France in 1896 and 1904; and several engagements with Siam extending from 1868 to 1894.

Within this frontier, which marches with Persia, Afghānistān, Russia, Tibet, China, and Siam, lies an area estimated at more than 1,800,000 square miles, inhabited by about 300,000,000 people. On the west the Persian Makrān border runs from Gwetter Bay, through Jalk, to the Koh-i-Malik Siāh, whence the Afghān line continues east along the desert sands of Nushki as far as the Sarlat range. Thence the line, usually called the Durand line, goes north through Chaman and Domandi till it reaches Mount Sikarām, in the Safed Koh range, above the Peiwar Pass. The British-Afghān border here turns east to Landi Khāna in the Khyber Pass; then, resuming its northerly direction and leaving Kāfiristān to the Amīr, it follows the Wākhān frontier to Povalo Schveikovski, in longitude 75° E., where three empires, the British, Russian, and Chinese, meet. Nature then interposes a scientific frontier along the Muztāgh (Karakoram) range and the Himālayas, until the Brahmaputra is crossed on the north of Assam. Unexplored and uncivilized tribal country guards the northern limits of Assam and Burma from the intrusion of peaceful surveyors or hostile visitors, until the upper basins of the Irrawaddy and Salween are reached, and then, at a fixed point north of Sabu Pum (25° 35′ N.; 98° 14′ E.), scientific survey and diplomatic agreements resume their operations and trace the British-Chinese border along the side of Yünnan. Kokang falls to India; and from the point where the Chinese frontier is left, down to the mouth of the Nam Huok, the possessions and spheres of influence of France and Great Britain are divided by the Mekong river. The rest of the frontier, from the Mekong to the mouth of the Pakchan in the Malay Peninsula, has been clearly defined by various agreements with Siam.

The States under British suzerainty are in 'India,' but not in 'British India.'

India, lying within the limits thus defined, consists of two parts, British India and the territories of Native chiefs, or to use the more common phrase, Native States. Parliament in the Interpretation Act of 1889 (52 & 53 Vict., cap. 63, sec. 18) has adopted the following definitions: 'The expression British India shall mean all territories and places within Her Majesty's dominions which are for the time being governed by Her Majesty through the Governor-General of India, or through any Governor or other officer subordinate to the Governor-General of India. The expression India shall mean British India, together with any territories of any Native Prince

or Chief under the suzerainty of Her Majesty, exercised through the Governor-General of India, or through any Governor or other officer subordinate to the Governor-General of India.' We may say, then, that the Native States consist of territory in India, not being within His Majesty's dominions yet under his suzerainty, which in the case of 175 States, including those of the greatest importance, is exercised by the Supreme Government, and in the case of the remainder, numbering about 500, is entrusted to the Provincial Governments. The most obvious test of dominion is supplied by the constant action of courts of law. In whose name do writs run and in whom is jurisdiction over the territory vested? The courts of British India rest upon the law of Parliament and the legislative powers which that law has entrusted to British authorities in British India, whereas the courts which administer justice in any Native State exist under the authority of the ruler of that State. This authority, it must be remembered, is not impaired by the sanction, express or implied, given by such a ruler to the establishment within his territory of courts introduced by the executive authority of the Governor-General-in-Council, for such courts are in theory the courts of the Native State. In other words, the jurisdiction sometimes exercised by the Government of India in a protected State is, from the British-Indian point of view, extra-territorial, and is part of the internal sovereignty of the State, in which the British Government has a share by treaty, cession, or other lawful means. Its existence does not convert suzerainty into dominion. Sometimes a question arises whether this or that block of territory in India is or is not within British dominion, and the Privy Council has more than once been appealed to on this point. In particular, doubts have occurred as to whether the British Crown possesses territorial dominion, and not merely suzerainty, over Kāthiāwār, the Tributary Mahāls of Orissa, and those of Chotā Nāgpur. Whether or not a so-called Native State is what it professes to be is a question of fact which, in the absence of a legal decision, must be settled by the present action of the British paramount power. If the persons who reside in the territorial area, not being by birth or naturalization British subjects, are treated by the courts of India as foreign subjects, it may be concluded that the country to which they belong is a Native State.

Attributes of sovereignty divisible.

The position of the territorial chief, or ruling authority, is of less importance. The status of the territory and not that of its ruler is the essential point. The generally accepted view is

that sovereignty is divisible, and that its attributes, such as the right to make war or peace, the right of foreign negotiation, the right to legislate, the right to administer civil and criminal justice, and so forth, are capable of division. The sovereign who enjoys all these rights is alone independent, and in India the accepted suzerainty of the British Crown involves a partition of the aggregate of such powers between the suzerain and the prince. Accordingly no ruler of a Native State can be described as 'independent.'

Striking differences as regards situation and distribution of Native States.

Information in respect of the area, population, revenue, and other details regarding Native States will be found in the Appendix. The statistics there given invite some remarks. The area outside direct British dominion is enormous (more than 824,000 square miles), but the population (68,000,000) is vastly inferior to that of British India, and has moreover suffered diminution in the last decade. The arid tracts of Rājputāna and Baluchistān, the States embedded in the mountainous tracts of Northern and North-Western India, and many of the small principalities in the forests and hills of Central India and the ranges of the Ghāts account in some measure for this difference. The relegation of so many States to inhospitable and unproductive regions was the natural consequence of the pressure of invasion and conquest, as each successful invader drove back those who opposed or fled before him into tracts which were sufficient to support existence and yet not rich enough to afford plunder. At the same time also some of the fairest portions of Indian territory lie within the Native States. Mysore possesses a fertile soil and valuable mineral ores. Hyderābād is considerable in area and rich in iron and coal-fields. Baroda is the garden of Gujarāt. Kashmīr is one of the most favoured countries in the world as regards scenery, climate, and natural capabilities. The territories not under British dominion are thus often valuable, and their geographical position frequently lends them importance.

If the collective extent of the Native States strikes the eye, the multiplicity of separate sovereignties is even more noticeable. Many of them are very small, some of the chiefs exercising authority over only a few villages. Thus in Rājputāna the area of Lāwa is but 19 square miles; Central India, especially in Baghelkhand and Bundelkhand, contains several very petty territories; the Simla Hill States are little more than small holdings; and the same feature is to be seen in the Kāthiāwār and Gujarāt groups of Bombay. Equally remarkable is the irregular geographical distribution of the principalities.

Bengal, in the foremost rank of Indian Provinces, has now only twenty-six States, most of them of small account, in direct relations with its Government, against thirty-four in the Punjab. The United Provinces count only two, Rāmpur and Tehrī, while Madras has but five, against 354 attached to Bombay. Even in the large Agencies directly subordinate to the Government of India, there is a marked contrast between the partition of Rājputāna under twenty rulers and the 148 separate States or estates into which the Central India Agency is divided. The explanation of these irregularities lies partly in the policy pursued by the British at various times, and partly in the course of events over which they had no control. In some parts of India a stronger power had made a clean sweep of upstarts, and even of ancient petty dynasties, before the British advanced. Thus, in the South of India, the Nizām of Hyderābād, the Nawāb of the Carnatic, and the Muhammadan usurper of Mysore had cleared the ground, while even in Travancore the ruler had bound up a number of petty chiefships into one unit, strong enough to resist the encroachment of its neighbours. When, therefore, the Carnatic fell under British control and Tipū Sultān was finally overthrown, large united territories had to be disposed of, either by annexation or by restitution to a former dynasty. The work of consolidation had here been accomplished by others before the British introduced their system. On the other hand, Central India continued to the last a scene of disorder and contest, owing to the policy of non-intervention, until the British Government cried halt and the swords of adventurers were perforce sheathed: then the spoils were suffered to remain in the hands that held them. In Bombay, again, the Peshwā's authority had been weakened, and territories were constantly changing rulers up to the moment when the Marāthā supremacy was overthrown at Kirkee. The British had by that time changed their policy of non-intervention for one of political settlement. They accordingly proceeded at once to recognize the *status quo* in the disturbed areas of Kāthiāwār and Gujarāt which they did not bring under British dominion. There was no general inquiry into titles, nor was pause given for the consolidation of States by the will of the strongest. Existing acquisitions were recognized once for all, and the political situation, ruffled as it was by the storms of war and aggression, was in a moment petrified. On the other hand, in parts of India which were at that time regarded as beyond the British sphere, the process of natural consolidation went on. Thus in the Punjab, although the cis-Sutlej chiefs

were protected, Ranjīt Singh was left to swallow up his other neighbours as he pleased. Accordingly, the annexation of the Lahore kingdom in 1849 brought a large and compact territory under British dominion, the principalities that formerly clustered there having already been subdued by the Sikh ruler. Political as well as physical geography bears witness to the stress of destructive forces through which a country has passed. The volcanic origin of some of the political groups shown in the Appendix is clearly revealed by the number of fragmentary States that still subsist in those parts of India where chaos reigned longest.

Division of States into ancient and modern.

Speaking generally, it may be said that the majority of Native States are of modern origin. Their source or longevity is, however, no longer a question of vital interest. The important fact for them is their admission into the political system of the British protectorate, and the assurance by statute (21 & 22 Vict., cap. 106, sec. 67) that all 'treaties made by the said [East India] Company shall be binding on Her Majesty,' to which may be added the solemn declaration, contained in the *sanads* of adoption conferred after the Mutiny upon every important ruling chief, that Her Majesty is 'desirous that the Governments of the several Princes and Chiefs of India who now govern their own territories should be perpetuated, and that the representation and dignity of their houses should be continued.' Moreover, in the celebrated Proclamation of 1858, Queen Victoria declared that 'We desire no extension of our present territorial possessions; and while we will permit no aggression on our dominions or our rights to be attempted with impunity, we shall allow no encroachments on those of others. We shall respect the rights, dignity, and honour of Native Princes as our own; and we desire that they, as well as our own subjects, should enjoy that prosperity and that social advancement which can only be secured by internal peace and good government.' Nevertheless, in view of former controversies, especially those excited by the application of the doctrine of lapse, it is desirable to take a rapid survey of the principal Native States, in order to indicate those which were in existence when the Company obtained from the Mughal emperor, in 1765, the Dīwānī of Bengal, Bihār, and Orissa. Such an examination will also serve to explain the material out of which the map of India as it exists to-day was originally formed.

Kalāt.

Kalāt, which occupies a very important position on the western flank of British India, had then already shaken off the control of Delhi. At the beginning of the eighteenth century

its Khān was virtually independent. Later on the Persian invader, Nādir Shāh, annexed the whole of the Mughal territories west of the Indus; and after his death Ahmad Shāh, Durrāni, established his supremacy over Kalāt, but was obliged to leave a member of the ruling family in possession of its territories. The Durrāni supremacy, however, sat so lightly on the Khān that the British entered into relations with him during the Afghān War of 1838; and in 1854, during the Crimean War, they strengthened this alliance, thereafter substituting British protection for formal dependency on Kābul. North of the area known as Baluchistān lies a rugged country, mainly inhabited by Pathān tribes, through whose passes wave after wave of conquest has flowed without affecting the internal independence of its inhabitants.

Kashmīr.

Kashmīr was no doubt re-created by the British after Ranjīt Singh had annexed it to the Punjab; but Gulāb Singh, upon whom he had conferred Jammu, belonged to a family of Dogrā Rājputs which had long ruled over this mountainous tract. Jammu then, to which Kashmīr was attached by the British Government in 1846, may be reckoned as an old principality.

Nepāl, Sikkim, and Bhutān.

The State of Nepāl as now existing arose from the subversion of previous Newār dynasties by the present Gurkha house in 1769; the Tibetan families which now rule in Sikkim and Bhutān date from the sixteenth and seventeenth centuries. South of the mountain barrier of the Himālayas there are Native States still held by rulers of ancient origin.

Manipur and Cooch Behār.

Manipur, ruled by a Nāgā family which adopted Hinduism in 1714, fairly held its own against the Burmese until it was rescued from further danger by the treaty made in 1826 with the king of Ava. Cooch Behār was established four centuries ago by its Koch Rājās, and although it suffered heavy losses of territory at the hands of the Mughals and Bhutānese, it still remains a fragment of an historic principality. Conquest, and the disorders which preceded it, have wiped out numerous chiefships which once existed in the United Provinces;

Rāmpur.

but Rāmpur, although re-created by the British after the cession of Rohilkhand in 1801, is held by descendants of the Rohilla Afghāns who founded a principality there in the early part of the eighteenth century.

Punjab States.

Bahāwalpur, the largest State (territorially) in the Punjab, represents an offshoot of Muhammadan conquest from Sind; Patiāla, Nābha, Jīnd, and Kapūrthala are the chief of the Sikh principalities saved or restored by British intervention; while a number of the petty Rājput States in the hills can trace their origin to a period anterior to the Mughals.

Rājputāna, the Abode of Chiefs, has, by virtue of its inhospitable deserts and the protection of the Arāvalli Hills, given secure shelter to the most ancient Hindu houses. The victory of Bābar at Sīkri in 1527, the attempts of Akbar to establish his supremacy by means of matrimonial alliances, and, later on, the intrusion of the Marāthās and Pindāris effected great changes in the territorial arrangement of the Rājput clans and dynasties; but through all these sufferings seventeen States have preserved their political existence. The chief of these are Udaipur (Mewār), Jaipur, Jodhpur (Mārwār), and Bīkaner. The two Jāt States of Bharatpur and Dholpur, and the Muhammadan principality of Tonk, which was seized by the celebrated Pindāri leader, Amīr Khān, alone represent the intrusion of aliens, drawn into Rājputāna by the shock of the explosion which shook to the ground the empire of Delhi. The case is far different with the territorial area known as the Central India Agency. Here the whole ancient political system was wrecked, and the country redistributed as the prize of violence and disorder. This large tract invited attack from north and south. The Marāthās, headed off on the east by the Muhammadan State of Hyderābād, and obliged by want of forage to avoid the desert tracts of Rājputāna, pushed up the valleys of the Tāpti and the Narbadā rivers and pursued their way across the Sātpurā and Vindhyan ranges in search of spoil. As they moved north they left behind them soldiers of fortune, favourites of the Peshwā, and adventurous spirits, who settled themselves in the country. Sindhia, who became ruler of Gwalior, Holkar of Indore, the Ponwārs of Dhār and Dewās, were the most successful commanders of such colonies, while many petty States and mediatized estates are also relics of these plundering and lawless immigrants. Into the same area descended other spoilers from the north, as, for instance, the Afghān who founded the State of Bhopāl, and the Pindāri who seized Jaorā. Almost all ruling chiefs in this part of India are of modern origin, sprung from the anarchy which the British tolerated after the battle of Buxar because they were anxious to avoid increasing their responsibilities. Nevertheless, even here may be found chiefs of a respectable antiquity. The Bundelās of Tehrī or Orchhā, in Bundelkhand, lost heavily at the hands of the Marāthās; but they preserved their independence, and their antiquity was recognized by the British when, in later years, the question of lapse was raised on the failure of male heirs. Datiā was an offshoot of Tehrī, and among the smaller estates are a few held by aboriginal chieftains whose ancestors

Rājputāna.

Central India.

kept their ancient foothold in forest and hill tracts until the British peace was proclaimed. Further east, in Baghelkhand, the State of Rewah has a less chequered history, and is ruled by a Rājput of ancient lineage.

Bombay States and Baroda.

If the survey of the Native States is continued to the west, it will be seen that Bombay resembles Central India in the traces of disintegration and disorder left by the eighteenth century. In no part of India is there a greater variety of principalities, the bulk of them being of modern origin. There are, however, several Rājput houses that have long held rule here. The Jādejas of Cutch were established in that secure peninsula, behind an arm of the sea and the deserts of Sind, at the close of the fifteenth century. From Cutch and from Rājputāna there was, in the distant past, an overflow into Kāthiāwār and Gujarāt. Yet even in Kāthiāwār, lying off the usual path of invasion, the premier state, Junāgarh, represents the comparatively modern intrusion of Muhammadans. Afghāns and Bābis rule farther east at Pālanpur and Rādhanpur, while Cambay witnesses the successful effort of the family of the Sūbahdār of Ahmadābād to establish itself on the break-up of Mughal rule. Farther south a Sesodia of the Udaipur clan is settled at Dharampur. More interesting traces of ancient history are to be found at Sachīn, Janjīra, and Jāfarābād, where chiefs of a foreign ancestry, descended from Abyssinian admirals of the Deccan fleets, still remain in the enjoyment of ruling powers which they received before the break-up of the Mughal empire. But, as has already been said, the majority of the Bombay States were founded by Marāthās in the general scramble for power, when the control of the Peshwās laxed weak, in the middle of the eighteenth century. The most important of these is the territory of the Baroda Gaikwār, which, though in direct relations with the Government of India, is geographically a part of the Bombay Presidency. Kolhāpur also deserves mention as being ruled by a chief who traces his descent (through adoption) from the great Sivajī. A few aboriginal chiefs, Bhīls or Kolīs, exercise an enfeebled authority in the Dāngs and the hilly country that fringes the Mahī and the Narbadā (Rewah) rivers. The Khairpur State, in Sind, is a survival of the former rule of the Baluchi Tālpur Mīrs in that province.

Hyderābād and Mysore.

In the centre of the Deccan, Hyderābād, the premier State of India, fills a large space on the map. Since its rulers held office as Sūbahdārs or provincial governors of the Delhi empire, and entered into alliance with the East India Company on their own account when the emperor was a mere puppet in the

hands of the Marāthās, they may fairly be regarded as established and legitimate princes when the British supremacy commenced. Mysore, the next largest principality in the South, is a modern creation in so far as it was restored by the British in 1799, after the capture of Seringapatam, and again in 1881, when the regular succession had failed. But it was a revival of the former rule of the Hindu Wodeyars, whose existence as princes dates back to the fifteenth century, although suppressed during the usurpation of Haidar Alī and his son Tipū. The States in direct relations with the Government of Madras are few and, with the exception of Travancore, unimportant, because the southern part of the Peninsula was the scene of prolonged struggle during which none but strong powers could protect themselves, and the work of consolidation had preceded the final shock of arms, in which large territorial units fell to the victor as the fruits of conquest. The wars fought involved the very existence of the combatants, and the States which still survive threw in their lot at an early date with the power which eventually subdued the Carnatic and Mysore. Travancore and Cochin may claim to be ancient, since they can trace their existence to a period which preceded the struggles between the French and the English; and the small *jāgīr* of Sandūr carries the memory back to an early time when Marāthā adventurers, first in the service of Bijāpur and afterwards on their own account, acquired principalities in Southern India. The Central Provinces chiefs are largely Rājputs, or *soi-disant* Rājputs, ruling over populations in which the aboriginal element is strong; and the Shan States are fragmentary relics of a dominion which once extended widely over Burma proper. The States, or Tributary Mahāls, attached to the Chotā Nāgpur and Orissa Commissionerships of Bengal are of much the same character as those in the Central Provinces, and, like them, were previously subject to the Bhonsla Rājās of Nāgpur.

Madras States.

Central Provinces and Burma States.

The policy pursued by the Government of India in its relations with the Native princes has been modified at various times in order to adapt itself to the changing conditions of the suzerain and the protected powers. At one time a sharp line of distinction was drawn between ancient and modern States, or those classed as independent and those reckoned subordinate or dependent. The brief sketch just given suffices to show that under the Himālayas, in the desert tracts of Rājputāna, in the forests and mountainous tracts of the Peninsula, and in provinces which lay remote from Delhi, there existed a fair number of principalities in which the local authority was

British policy a departure from previous practice.

tolerated, if not respected, by the central government before the East India Company entertained any idea of widespread dominion. At the same time it is a fact that the British gained little help from their predecessors in solving the difficult problem of maintaining friendly relations with the Native princes. The foundations of the present political system are not rooted in the past. The administration of the country under the direct dominion of the King-Emperor owes much to former rulers of India, and particularly to the genius of Akbar; but the protectorate is almost exclusively the creation of the last century and a half, and has been built up, like British India itself, out of the ruins left by the Mughal empire. The Marāthās, who for a few years seemed likely to succeed to that empire, had no idea of respect for the rights of others, or of duty even to their own subjects. They used their armed forces to extract revenue at the spear's point, and regarded suzerainty as merely conferring upon them the right to levy *chauth* or a fourth part of the revenue.

The Mughals aimed at dominion, not suzerainty.

It is impossible to give more than a bare outline of the situation when the Mughal empire finally collapsed, on the assassination of Alamgīr II in 1759. The salient historical features are the entire break-up of the old Delhi empire in the middle of the fourteenth century, its reconstruction by Akbar, and the final collapse of Mughal authority, leaving the whole country a scene of chaos and disorder. In the reign of Muhammad Tughlak (1325–51) the rule of Delhi extended over the greater part of the Peninsula. But the extravagance and folly of the Sultān, his exactions, and above all his forcible removal of the inhabitants of Delhi to Daulatābād, caused his own troops to rebel and drove the provinces into revolt, and the whole country was once more split up into local states. The Carnatic Rāyās established their famous kingdom of Vijayanagar; the Rājās of Warangal, about 90 miles from Hyderābād, recovered their old possessions from the empire; while the Muhammadan power of the Bahmanis asserted its independence in the Deccan, and made its capital first at Gulbarga in 1347, and in the next century at Bīdar. The Bahmani kingdom broke up, towards the close of the fifteenth century, into the five separate States of Bīdar, Ahmadnagar, Bijāpur, Berār, and Golconda. So long as the Hindu kingdom of Vijayanagar constituted a danger to them, some sort of combination enabled these states to hold their own, and they succeeded in destroying the power of the Hindus at the decisive battle of Tālikotā in 1565. But when this danger had passed

the Muhammadan States quarrelled among themselves, and so opened the way for the rise of the Marāthā power, which won its first successes against Bijāpur.

At the accession of Akbar in 1556 there were many other kingdoms in the central and northern parts of India. Gujarāt, Khāndesh, Sind, Kashmīr, and Bengal were under separate Muhammadan dynasties; Rājput houses ruled in Rājputāna, Bundelkhand, and Baghelkhand; and numerous petty states under the Himālayas existed as independent sovereignties. The problem which Akbar (1556–1605) was called upon to solve was in many respects the same as that which, two centuries later, presented itself to Warren Hastings and his successors. The country was broken up into territorial fragments: should the whole of them be brought under one uniform dominion, or should the tie of suzerainty suffice? Akbar solved it in his own fashion. He brought his own subordinates to order, recovered most of the former dominions of Delhi, and introduced a just administration. He parcelled the country out into great provinces, and each province or *sūbah* included the Native States within it. Rājputāna was, however, able to preserve much of its independence. It bent before the storm, and its ancient families, with the exception of Udaipur, formed matrimonial alliances with the imperial house. Khāndesh, Gujarāt, Bengal, Kashmīr, and Sind were conquered; and attention was then turned to the Deccan, where the Muhammadan States had now been reduced to three—Ahmadnagar, Bijāpur, and Golconda. Akbar's hand fell heavy on Ahmadnagar; but the kingdom was not finally absorbed till the time of his grandson, Shāh Jahān, who also weakened Bijāpur and Golconda.

When at length Aurangzeb was free to complete the work begun by Akbar, he found that he had to reckon with Sivajī as well as with his Muhammadan rivals. His military commanders made a fatal mistake. After exchanging a few blows with the Marāthās, they imprudently came to terms with them. Sivajī was recognized as Rājā and allowed to turn his army against Bijāpur. Aurangzeb finally took the field himself, and destroyed Bijāpur in 1686, and shortly afterwards Golconda, overrunning the country as far south as Tanjore. The Marāthās meanwhile had been turned into implacable enemies of the empire by the cruel treatment of Sivajī's son, whom the emperor captured and put to death, and the closing scene of the life of Aurangzeb was his inglorious retreat to Ahmadnagar. These operations impoverished the treasury of the empire,

destroyed Muhammadan States which might have served as breakwaters against the tide of Marāthā invasion, and spread disorder throughout the country. The home policy of Aurangzeb was even more ill-judged. His bigotry alienated the Hindus, whom Akbar had conciliated, and the severity of his measures against the Rājputs was never forgotten. After the reign of Aurangzeb the empire began to fall to pieces. Nādir Shāh, attracted by the jewels and treasures which the imperial house had amassed, invaded India and permitted a general massacre of the inhabitants of the capital in 1739. Bājī Rao Peshwā, who was now head of the Marāthās, saw his opportunity and took it. He and his successor, Bālāji Rao Peshwā, continued the war against their Muhammadan neighbours, and Marāthā cavalry advanced into Bengal and the home districts of Delhi. While this danger from the South confronted the empire, Ahmad Shāh, Durrāni, invaded India from the north-west and completed the ruin of the capital in 1757, repeating the horrors of Nādir Shāh's invasion. It will thus be seen that the Mughal emperors had a clear field before them when Akbar established his grip on India. Their policy, however, was destructive so far as the Native States were concerned. They aimed at dominion and not at suzerainty. They did not even spare the principalities of their co-religionists in the South, and when their empire fell the whole country relapsed into worse confusion than that which prevailed after the death of Muhammad Tughlak.

The Marāthās evolved no policy.

The Marāthās exhibited few of the redeeming features of Mughal rule. They quarrelled among themselves, and the absence of all discipline in their armies rendered their visitations a scourge to the countries which they overran. Plunder and not the restoration of order was their declared policy. Fortunately for those upon whom the task of reconstruction was to fall, the Marāthās provoked, by their invasion of the Punjab, the vengeance of Ahmad Shāh, who inflicted a crushing defeat upon them at Pānīpat in 1761, where, according to report, nearly 200,000 Hindus were left dead on the field of battle. Thereafter the Marāthā confederacy existed only in name; and the policies pursued by its chief leaders, Sindhia, Holkar, and the Bhonsla of Nāgpur, often brought their forces into collision with each other. Ahmad Shāh retired with his Afghān and Persian levies to his own country, and left others to settle the fate of India. It then became evident that periods of dissolution and disorder are also periods of gravitation. The Marāthā territorial chiefs, jealous of the central authority at

Poona, and quarrelling among themselves for the spoil, were incapable of creating a political system. It was reserved for the clear-headed merchants from London, working up from the sea-coast, to succeed where their predecessors had failed, and to show that they were as able to maintain the rights of the Native States as they were to administer their own dominions.

The wars with France compelled the Company to intervene in the Native States.

Their intervention was not directly due to events in Asia: it was created by European politics and the rivalries of Dutch, French, and English. The London East India Company, which was England's answer to the Dutch East India Company, a national concern, obtained Queen Elizabeth's charter at the end of 1600, and established its factory at Surat under a *farmān* from Delhi granted in 1612. In 1639 Madras was occupied, and became the seat of a Presidency in 1653. When the Portuguese handed over Bombay as part of the dowry of Catherine of Braganza, the head-quarters of the Company in Western India were, after some interval, transferred to that island in 1687. Calcutta was acquired about the same time. The year 1693 witnessed a change in the position of the London East India Company, which was threatened by a new English Company. Eventually a compromise was effected by the arbitration of Lord Godolphin, and the two rivals were amalgamated in 1702. Their undivided forces were then ready to deal with the French, who had lately recovered from the Dutch their settlement at Pondicherry on the Coromandel Coast.

The stirring events of the second half of the eighteenth century which, operating first in the south of the Peninsula, drove the East India Company into alliances with the Native States, can only be understood by reference to the history of France and Great Britain. Five separate conflicts occurred between the two European nations. First came the contest about the Austrian succession. The French declared war on England in 1744, and the Treaty of Aix-la-Chapelle (1748) terminated hostilities without much advantage gained by either side in India. The French had taken Madras, which was restored by the peace, and the British had failed to take Pondicherry. The interests of the two powers in India were ably represented by Clive and Dupleix when the war came to an end. Immediately, and while the nations were at peace in Europe, a war of succession of the utmost moment to the French and English Companies broke out in Southern India. Asaf Jāh, the great Sūbahdār or Nizām of the Deccan, died in 1748. Dupleix supported Muzaffar Jang in

his claims to succeed, against Nāsir Jang, whom the English favoured. The Carnatic was a subordinate division of the Deccan, with its capital at Arcot; and Muzaffar Jang appointed as its Nawāb Chanda Sāhib, whose claims were presently disputed by Muhammad Alī, supported by the English and the Marāthās. Hostilities were at once actively prosecuted in the Carnatic. The capture and subsequent defence of Arcot by Clive in 1751, and the defeat of the French at Trichinopoly by Lawrence, secured the ascendancy of English influence in the South. At Hyderābād the French were more successful; for on the death of Muzaffar Jang they secured the succession of Salābat Jang, who assigned to Bussy the Northern Circārs for the pay and equipment of a French auxiliary force. While these events were taking place in India, the French Government at Paris was not yet in a position to go to war with England; and, in reply to English remonstrances, it recalled Dupleix in 1753 and sent out in his place M. Godeheu, who made an arrangement with the East India Company, the effect of which was to recognize Muhammad Alī as Nawāb of the Carnatic.

The third conflict was soon to begin—the Seven Years' War which was declared in 1756, and closed by the Treaty of Paris in 1763. The French allowed a fatal delay before dispatching a fleet to the East. They had lost the services of Dupleix; and Lally, after capturing Fort St. David, committed the mistake of summoning Bussy from Hyderābād, thus weakening French influence at that centre. Clive, who had proceeded to Bengal to avenge the outrage of the Black Hole, not only settled its affairs after the battle of Plassey (1757), but thereby secured revenues to supply the sinews of war in Madras. The siege of Madras by the French was raised, in 1759, by the timely arrival of the English fleet, and the tide of war turned against Lally at a time when English victories at Quebec and Quiberon Bay were hampering French action in other fields and seas. The Nizām agreed to exclude the French from his dominions, and the Northern Circārs passed into the hands of the English, who, in 1765, obtained the emperor's confirmation of their title. The decisive blow, so far as the French were concerned, was struck at Wandiwāsh by Eyre Coote in 1760; and in its results in Southern India this was an event hardly less important than the battle of Pānīpat which, in the following year, shattered the Marāthā confederacy. Pondicherry surrendered; and when the Peace of Paris was concluded, although the French settlements were restored and Salābat

Jang was recognized as Nizām of Hyderābād, the cause of the French was practically lost.

Muhammad Alī was now established as Nawāb of the Carnatic, but he owed large sums to the Company for its help, and his debts were presently increased by the war with Mysore. As he was unable to pay, the Company took over certain districts and eventually the entire management of the Carnatic. Meanwhile the storm began to blow from the direction of Mysore. Haidar Alī led a force into the Carnatic and, appearing before Madras, compelled the British to make an alliance with him in 1769. In 1775 the War of American Independence broke out, and in 1778 France engaged in a maritime struggle with England. This was the fourth conflict. The rival Companies could now fight without scruple, and their quarrels at Mahé and in the Circārs brought down the enmity of Haidar Alī and the Nizām upon the British. Haidar Alī overran the Carnatic, but was defeated in 1781 by Eyre Coote at Porto Novo. When the war in Europe ended, in 1783, with the Treaty of Versailles, France recovered her possessions, but not her influence, in India. She continued, however, to intrigue with Tipū Sultān, who had succeeded his father in 1782; but when, in 1793, she again declared war on England and the fifth conflict occurred, her maritime power was broken by the battles of Cape St. Vincent and the Nile, and in 1799 the fall of Seringapatam brought down with a crash the ambitious projects and the dominion of Tipū.

Growth of the protectorate in Southern India.

Thus French hostilities and intrigue forced the East India Company into alliances and conflicts with the Native princes in Southern India. On the conclusion of the Mysore wars, Hyderābād was granted some of the conquered districts, while the relations of the Nizām with the Company were fixed on a friendly basis of subordinate co-operation and internal independence. Mysore was restored to the family from whose hands Haidar Alī had wrested power, and, like Travancore and Cochin, was admitted into the protectorate. The Carnatic remained subject to its titular Nawāb till 1801, when it was brought under direct British administration. The political consequences of the wars in the South did not however end here. The Marāthās had asserted claims to *chauth* against Haidar Alī; and when a temporary peace was concluded by the British with Tipū in 1784, on the basis of mutual restoration of conquests, the court of Poona resented it as an infringement of a treaty made with the Peshwā. Then, in 1795, the Marāthās fell out with the Nizām; and although after the

fall of Seringapatam part of the spoil was offered to the Peshwā, he listened to the advice of Sindhia and refused to receive it. The final settlement of 1799–1800, by removing the anti-British influence of a Muhammadan Government in Mysore, and by uniting the Nizām and the British in alliance, made a final rupture with the Marāthās merely a question of time and opportunity. In short, it had become evident that the conflict in Madras was only part of a greater problem, and that some political settlement in the West must follow that concluded in the South. But before the situation in Bombay is examined, some account must be given of the position in Bengal.

Its extension to Oudh and Bengal.

Events in Bengal, by pushing the Marāthās back from that side, prepared the way for action in the West. The necessity which here forced the Company into action was mainly due to local and not to European causes. The Sūbahdār or Nawāb of Bengal was not as wise in his generation as the Nizām, and his practical independence of the emperor's control rendered him disinclined to treat with respect a small body of British traders, whose only *farmān* was one of ancient date (1624). Aurangzeb, moreover, had at a later time threatened them with extinction, and had partly carried out his designs. It is true that Aurangzeb's son, the provincial governor of Bengal, had at the end of the seventeenth century granted them leave to purchase Calcutta. But what one Sūbahdār had allowed another might disallow; and when Nawāb Sirāj-ud-daula entered upon that office in 1756, he ordered the Governor of Calcutta to deliver up to him an official who had sought shelter in the factory, and demanded that its fortifications should be razed. On refusal, the settlement was captured in June, 1756, and the tragedy of the Black Hole ensued. A force dispatched from Madras under the command of Clive recovered Calcutta in January, 1757, and the battle of Plassey was won on the twenty-third of June following. The next step taken by Clive was to install Mīr Jafar as Nawāb of Bengal; but he did not give satisfaction to the servants of the Company, and Mīr Kāsim was appointed to fill his place in 1760. Meanwhile, the newly established British ascendancy had been threatened by the French and the Dutch, as well as by the Sūbahdār (Nawāb Wazīr) of the neighbouring province of Oudh, with whom Shāh Alam, the emperor's son, was in league. The French were driven out of Chandernagore, and a Dutch squadron, which appeared in the Hooghly in 1759, was attacked and defeated by the British. The danger which

threatened from the north-west was not so easily settled. Shāh Alam and his allies had retired from Patna in 1758; but when the British quarrelled with Mīr Kāsim and restored Mīr Jafar (1763), the Nawāb Wazīr of Oudh, Shujā-ud-daula, espoused the cause of Mīr Kāsim and invaded Bengal. The battle of Buxar (1764) completed the work begun at Plassey, and laid Oudh and Allahābād, as well as Bengal, at the feet of the British. Shāh Alam, now emperor, received Allahābād and Korā, and in turn, in August, 1765, confirmed the Company in their possession of Calcutta, and granted them the Dīwāni of the provinces of Bengal, Bihār, and Orissa. Oudh was at the same time recognized as under the dominion of its Nawāb Wazīr, and shortly afterwards a restriction was put upon his army, which was limited to 35,000 men. The object of Clive was to create in Oudh a barrier against the Marāthās, who replied by extorting from the emperor a cession of Allahābād. The main political result of these events was that Bengal became a part of British India, with Oudh as a buffer state, under British protection, on its north-west frontier. The Marāthās were left for the time being to pursue their operations in the Provinces of Agra and Delhi, and in the countries now known as the Central India Agency and the Central Provinces. The Mughal empire had fallen, but a final settlement with the Marāthās was yet to be made.

Extension over the Marāthā States, Rājputāna, and Central India.

The overthrow of the central government of the Marāthā confederacy was necessarily delayed until the wars with Mysore had been concluded. The Bombay factories had not been driven into political relations with the Native States in the interior by the pressure of European wars, as in the case of Madras. The geographical position of Bombay, however, rendered peace on the sea of vital consequence to its Government. Accordingly, the rulers of the maritime states—Kolhāpur, Sāvantvādi, Janjīra, Jāfarābād, and Cambay—had been induced to enter into treaties for the suppression of piracy. The earliest treaty with the Peshwā in 1739 was likewise a maritime and commercial arrangement. The attempt at interference in the dynastic succession at Poona made by the Bombay Government in 1775 was unfortunate; but subsequently the British were compelled by the wars in Madras to enter into closer relations with that court. At the same time events in Northern India induced the Peshwā to turn to the British for support. France, which had lost her influence in the South, was still in evidence in the North, where the armies of Sindhia were commanded by French officers. Sindhia had

already secured the fort of Ahmadnagar, had taken possession of a large part of the territories of Indore, and had acquired a complete control over the phantom emperor of Delhi; while the British on their part had acquired Rohilkhand and the country round Allahābād from the Nawāb Wazīr, thus enveloping Oudh in British territory. When, therefore, the British, by the Treaty of Bassein in 1802, ensured their influence at Poona and established a subsidiary force there, Sindhia at once entered into an alliance with the Bhonsla to defeat its object. War ensued, and the power of Sindhia and his ally was broken. The emperor was released from custody, the limits of the Gwalior and Nāgpur States were reduced, while Baroda became a subordinate ally of the British. Holkar, however, notwithstanding what he had suffered from Sindhia, was not pleased to see his rivals thus humiliated. He hoped to create a diversion by allying himself with the Sikhs, but he was pursued by Lord Lake and compelled, in 1805, to sign the treaty of the Beās by which his remaining territories were reduced. These events, while they freed the Peshwā from the pressure of his powerful confederates, also precluded the possibility of his combining with them to overthrow the British. Relations between the British and the court at Poona accordingly remained for a while on a friendly footing, until the assassination of the Minister of the Gaikwār, whose safety had been guaranteed by the British, led to the Treaty of Poona, in 1817, whereby the Peshwā's authority over Kāthiāwār, Bundelkhand, and Mālwā was transferred to the Company. The Pindāri hordes had meanwhile gathered strength, being recruited from the disbanded forces of the Native States, and strengthened by the then policy of non-interference. The Peshwā, encouraged by these disorders, broke his engagements and attacked the British Residency. The defeat of his troops at Kirkee, and the events which followed, compelled him to surrender his dominions to the British. The Pindāri War was brought to a conclusion (1817–8), and one of its effects was to place Rājputāna, as well as the minor States of Central India, under the protection of the Company. The three Marāthā States of Gwalior, Indore, and Nāgpur were at the same time brought within the British protectorate, and from this date the definite establishment of the British empire in India may be said to commence.

Inclusion of Sind and Lahore.

The Nepāl War (1814–6) fixed our present relations with that State (*vide* footnote on p. 92). Sind and the Punjab now alone remained outside the British system of protection. The

former was brought under the Company's dominion in 1843, with the exception of Khairpur, which was retained as a Native State. The Lahore kingdom continued until 1849, when the Punjab was annexed, but the cis-Sutlej States and Bahāwalpur were preserved, having previously been brought within the protectorate.

First period of British policy; that of the ring-fence.

This short sketch of the expansion of British dominion, and of the admission of the Native States into relations with the suzerain power, may serve to show the foundations upon which the present system is based. Sheer necessity drove the Company from point to point, and its plans were necessarily altered to suit the circumstances of the time. At the outset the policy of non-intervention was followed, and it was sought to avoid entangling alliances. Where the French went the British had to follow. When in the general chaos a Native ruler expelled the merchants from Calcutta, or the usurper of Mysore threatened to destroy Madras, there was only one course to pursue. Respect could only be ensured by adequate proof of superior power; but when the British, driven to hostilities, had beaten off the foe and secured the territories needed to supply the sinews of war and self-defence, they hoped to rest there. Accordingly they gave back Oudh after Buxar, to serve as a barrier against the Marāthās in Hindustān; they restored Mysore to its legitimate princes when Tipū Sultān was killed; and after the victory of Sītābaldī (1817) they regranted Nāgpur to the Bhonsla, just as, at a later date, the kingdom of Lahore was reconstituted after the first Sikh War. In short, during the first period of their connexion with the Native States the British endeavoured, as far as possible, to live within a ring-fence. The treaties which they concluded with the Native rulers were at that time made as if they were dealing with independent princes, sovereigns according to international law. They even continued for some years to regard themselves as acting under the authority devolved upon them by the emperor of Delhi; but when Shāh Alam left their protection and became the prisoner of the Marāthās, it was impossible to act any longer upon that fiction. Thereafter they had as good right to protect themselves as others had, and they proceeded accordingly, merely taking care that they did not incur responsibilities which they could not fulfil. The position thus taken up was sound from a common-sense point of view, and it was also strictly legal. At the trial in Chancery of the suit brought by the Nawāb of Arcot against the Company, for an account of profits and rent derived from its

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management of the Carnatic, Commissioner Eyre dismissed the bill on the ground that the transaction was a case of mutual treaty between persons acting in that instance as states independent of each other. The treaties were between two sovereigns, 'and consequently not a subject of private municipal jurisdiction.'

Second period, that of 'subordinate isolation.'

It is difficult to fix a precise year as the end of one period and the beginning of another. Changes of policy are of gradual growth. Nevertheless an examination of treaties, and the well-known views of Governors-General, may justify the selection of the year 1813 as marking the period when the theory of the independence of the Native princes, and the policy of non-intervention, gave way, in the hands of Lord Hastings and his successors, to the doctrine of 'subordinate isolation' and a general system of British suzerainty in India. It is true that Lord Wellesley foresaw the need for a change, and during his term of office (1798–1805) he advanced beyond the ring-fence, formed alliances with some of the Rājput States, and introduced phrases of 'obedience' as well as alliance into his treaties, as for instance with Datiā. But his successor, Lord Cornwallis, dissolved some of these engagements, and so late as 1809 Lord Minto refused to enter into an alliance with Bhopāl. It is therefore not unreasonable to select 1813, when Lord Hastings entered upon his office, as the date of departure and the commencement of the new policy of subordinate isolation.

The treaty of 1802 with the Peshwā foreshadowed the final abandonment of his sovereignty in 1817. The leading members of the former Marāthā confederacy were now isolated, and their territories reduced within fixed limits. Shāh Alam, the blind emperor, died in November, 1806; and although the Delhi Districts were administered in the name of his successor until 1832, when they were incorporated in the British dominions, every vestige of Mughal authority was gone when Lord Hastings assumed office as Governor-General. The old order had passed away, and in 1813 the suzerainty of the Peshwā over the other Marāthā chiefs was no longer an asset of value. There was only one strong power in India, that of the British Company which had triumphed over its European rivals and scattered its native enemies. Its victories had cost money, and the whole country required peace and breathing time after the scenes through which it had passed. When, therefore, the Pindāri robbers exposed the Company and its allies not merely to fresh expense, but to the horrors of uncivilized warfare, it became necessary for Lord Hastings to abandon a policy of

non-interference and to undertake the task of settling the affairs of the Native States, so far as their relations with the British were concerned. A policy of subordinate isolation, including all States up to Sind, the Punjab, and Burma, took the place of the empty professions of non-interference which Parliament had preached and the logic of hard facts had contradicted. This policy lasted until the Mutiny, and it included the period during which Lord Dalhousie gave effect to the doctrine of lapse by annexing 'dependent' Native States on the failure of male heirs to their Hindu rulers.

Influence of custom and usage on treaty relations.

Most of the treaties or engagements concluded with the protected States were made during this period. But many petty States have been brought under protection without formal engagements. In the same way there are engagements, dating between 1813 and 1857, which have not been amended and yet are profoundly modified by tacit agreement, the logic of facts, and public declarations of policy. In the transactions of states, as well as of individuals, documents must be interpreted by overt acts and long-continued practice to which the parties have conformed. For instance, in 1850, when civil war broke out in Bahāwalpur owing to a disputed succession, Lord Dalhousie decided that, so long as hostilities did not occur across the border of the State, the Government of India was not called upon to interfere, even though the chief whose succession had been acknowledged by the suzerain power should be expelled by his rival. This attitude was consistent with the practice then prevailing of non-interference in the domestic concerns of independent States. But after the Mutiny the practice was changed; and the Secretary of State, in July, 1891, publicly announced the universal practice and intentions of the British Government in these terms, with particular reference to the case of Manipur:—'It is admittedly the right and the duty of Government to settle successions in the protected States of India generally. Your interference was necessary also in the interests of the British Government, which has of late years been brought into much closer relations with the State of Manipur and its subject tribes than was formerly the case, and cannot safely tolerate disorders therein.' It is therefore necessary to bear in mind the action of usage and altered circumstances upon the relations of the suzerain power as recorded in its written agreements with the protected princes of India. With this explanation, it is convenient to take a brief survey of the conditions which existed in the period under discussion.

Classification of certain Native States for purposes of jurisdiction.

The main change introduced by Lord Hastings was the extension of British suzerainty over the whole of India east of the Punjab and west of Burma. But when the Peshwā's sovereignty was extinguished, it was found that the disorders which had prevailed in the west had fissured the territorial dominions nominally under the Marāthā Government at Poona with many scores of petty chiefships, especially in Kāthiāwār, Pālanpur, and the Mahī Kāntha, where the power of the Peshwā had long been weakened by the pretensions of the Gaikwārs of Baroda. Although, therefore, it was a cardinal feature of the policy of the Government to treat Native States as independent in their internal affairs, it was obvious that some distinction must be drawn between large States and petty estates. The largest as well as the small were to lose their international life. The external independence of all was to be surrendered. The suzerain power must act for its subordinate allies in external affairs: it must even keep a tight hand upon their military forces. But it had no agency to spare for the control of their domestic affairs, and it was considered wise to repudiate 'any manner of concern' in the administration of the protected chiefs. This object might be attained by leaving rulers who had adequate revenues to bear the entire burden of internal sovereignty. But it was otherwise with a number of petty chieftains whose authority extended over a few villages and who were unfit to administer justice. The difficulty was solved by dividing States into two classes: those in which the rulers exercised full civil and criminal jurisdiction, and those in which the jurisdiction was divided between the suzerain and the subordinate ally. The British Government did not choose, for instance, to incorporate Kāthiāwār in its dominions. It was at the same time unwilling to allow the stronger States, such as Junāgarh, to extend their rule over the weaker. That had been the policy of the ring-fence or of non-interference. Under a new system of subordinate isolation, it mattered not whether ten or one hundred instruments of rule existed in a territorial area. But justice must be administered, and therefore the British introduced a political settlement into compact areas of extraneous territory where numerous petty chiefs held sway. They divided the chiefs into classes, giving to each ruler, according to his means, a larger or smaller share of territorial jurisdiction, and exercising in the minor territorial units such powers as were not entrusted to the chief. This 'residuary jurisdiction' is exercised by the British Government or its officers on behalf of petty chiefs within their territories.

Many instances of it are to be found in Bombay, in Central India, in Orissa, and in Chotā Nāgpur.

Annexation through 'lapse.'

At a later date within the same period another distinction attained prominence. When the country became settled, and the need began to be felt for consolidating the British dominions by improved means of communication, it was realized that the Company had committed a mistake in re-creating principalities such as Sātāra or Nāgpur, which had fallen to it as lawful prize of conquest and now lay as blocks of foreign territory between one Province and another. It was determined, therefore, to look closely at the terms of these regrants and, in all cases where the consent of the Government was needed to the continuance of a Hindu dynasty by adoption, to consider carefully whether public interests would not be served by refusing to give such sanction. A distinction was therefore drawn between 'dependent' and 'independent' States, or States subordinate and not subordinate. The phrase 'dependent' was not a happy choice. For instance, when Lord Hastings, by a treaty of September, 1819, determined 'in consideration of the antiquity of the House of His Highness the Rājā of Sātāra to cede in perpetual sovereignty to the Rājā, his heirs and successors, the districts specified,' he went on to say that the Rājā, then a minor, 'shall ultimately have the entire management of the country.' In course of time the Rājā and his successor did rule over Sātāra and were frequently described as independent. But when the question of adoption was mooted, on the death of Shāhji in 1848, the decision of the Court of Directors was to the effect that Sātāra was a dependent principality, and the grounds of that decision were the limitations imposed by the treaty of 1819, and the circumstances under which the State was then created. The death-bed adoption made by the late Rājā was not recognized and the State lapsed to the Company. The same doctrine was applied to Nāgpur, Jhānsi, and some smaller States; but it was held inapplicable to Orchhā, and to Karauli in Rājputāna, on the ground that they were ancient and independent principalities. It should be added that in the cases where the doctrine of lapse was held to be justly applicable, it was applied on grounds of policy. Into that policy two considerations entered. The first was the desirability of consolidating British dominion by linking up the Provinces. The second was the extension of the advantages of British rule to the inhabitants of Native States. This consideration rested upon the principle, which was not challenged during the period from 1813 to 1857, that the protected princes of the larger States

were, so far as internal affairs were concerned, independent. The right to interfere except under the gravest conditions, in the absence of such a power as that which the Oudh treaties expressly conferred, and which was exercised by the annexation of that long-misgoverned State in 1856, was considered contrary to the policy and doctrines of the time. Since, therefore, the paramount power did not ordinarily intervene to redress misgovernment, it seemed to be a duty owed to the oppressed subjects of Native States that a rightful opportunity should not be lost of 'ensuring to the population of the State a perpetuity of just and mild government.'

Third period, that of subordinate alliance and co-operation.

The transfer of the government of India to the Crown, after the suppression of the Mutiny, left the British Government, in name as well as in reality, the suzerain power. As Lord Canning wrote in 1860, 'The last vestiges of the royal house at Delhi, from which we had long been content to accept a vicarious authority, have been swept away. The Crown of England stands forth the unquestioned ruler and paramount in all India, and is brought face to face with its feudatories.' The immediate consequence was to abolish all reserve as to timely interference to prevent misrule. The distinction between 'independent' and 'dependent' States lost its significance. *Sanads* of adoption and succession were conferred upon the rulers of the larger States. The doctrine of lapse gave place to a public assurance of the desire of the paramount power to perpetuate the houses of the principal ruling families. Treaties were no longer made as if between equals: engagements and *sanads* breathed a new spirit of subordinate co-operation on the part of the Native princes. The process of consolidating British dominion was continued by arrangements with the States and not by annexation of them. Conventions to promote railways, canals, and other common public works; arrangements to protect Imperial revenue and to provide for a common postal and telegraph system; and united efforts to put down *thagī* and dacoity, and secure the prompt surrender of criminals, added largely to the collection of public agreements. The territories under the suzerainty of the Crown became at once as important and integral a part of India as the territories under its direct dominion. Together they form one care, and the political system which the Mughals had not completed, and the Marāthās never contemplated, is now an established fact of history.

Rights of Native

An account may now be given of the rights and obligations of the Native States as at present established by written agree-

ments, by tacit consent, or by usage. The chiefs have, without exception, gained protection against dangers from without and a solemn guarantee that their protector will respect their rights as rulers. The paramount power acts for them in relation to foreign powers and other Native States. Parliament has recognized this in 39 & 40 Vict., cap. 46, of which the preamble runs, 'Whereas the several Princes and States in India in alliance with Her Majesty have no connexions, engagements, or communications with Foreign Powers, and the subjects of such Princes and States are, when residing or being in the places hereinafter referred to, entitled to the protection of the British, and receive such protection equally with the subjects of Her Majesty.' Next, as the passage just quoted and many Acts of the Indian Legislature show, the inhabitants of Native States are subjects of their rulers, and, except in the case of personal jurisdiction over British subjects and of 'residuary jurisdiction' as already explained, these rulers and their subjects are free from the control of the laws of British India. Accordingly, criminals escaping into a Native State must be handed over by its authorities: they cannot be arrested by the police of British India without the permission of the ruler of the State. The Native princes have therefore a suzerain power which acts for them in all external affairs, and at the same time scrupulously respects their internal authority. Nor are they secured only against dangers from without: the suzerain also intervenes when the internal peace of their territories is seriously threatened. Finally, they participate in all the benefits which the protecting power obtains by its diplomatic action or by its administration of its own dominions, and thus secure a share in the commerce, the railways, the ports, and the markets of British India. Except in very rare instances, no guarded customs-line marks the frontier of a British District; no passports are required to cross it; and notwithstanding the fact that the subjects of a Native State are foreigners in the eye of the law of British India, they are admitted into most of the public offices of the British Government.

States under the existing system.

It is obvious that these rights carry with them corresponding obligations; and the latter may be considered under the heads of obligations in respect of foreign relations, those affecting the common defence, and those necessary for the good government and welfare of the States themselves. The duties discussed under the first and second of these heads are common to all the States in principle, although they may be affected in details by special agreement, while those in the third category are

Obligations of the Native States.

much modified by the extent of the powers of government left with the various princes when they were admitted into the protectorate. For it has already been explained that in some petty States a mere fraction of jurisdiction was left with the chief; and there are even cases where such a State has become so small that the whole management of it now devolves upon officers of the paramount power, acting on behalf of a chieftain incapable of exercising even criminal jurisdiction over those who are nominally his subjects.

In respect of foreign relations.

The wars, alliances, and counter-alliances which resulted in the establishment of British supremacy show that, when once the internal authority of a State was guaranteed, it became necessary to lay down the principle that such authority had no existence outside the territory thus recognized. At the outset, then, an obligation was imposed, and accepted by even the largest States, which prevented their rulers from entering into relations with foreign nations or other States. The doctrine of isolation was carried so far that the employment of the subjects of European nations, or of Americans, without the previous sanction of the Government, was strictly forbidden. As a consequence, no protected prince may now receive even the commercial agent of a foreign power at his capital; the paramount power being the sole fountain of honour, he may accept no title, honour, or salute from any foreign court or foreign body; and he can issue no passports to his subjects when they travel abroad. If he is to participate in the benefits of a commercial treaty between the Government of India and a foreign power the matter must be arranged for him; if he requires the extradition of a criminal he must trust to the paramount authority to obtain it. His subjects when outside his dominions become, to all intents and purposes, British subjects, as shown by the treaty with Maskat in 1873, which declares that the words 'British subjects' in all treaties between the British Government and the Maskat State shall include subjects of Indian Native States. If an American or a Frenchman should be accused of committing an offence in a Native State, his Government would expect that he should receive justice, and the suzerain power must take the responsibility of ensuring that result. In short, in all circumstances where foreign interests are concerned, the paramount power must act so that no just cause of offence may be given by its subordinate allies, and they, in turn, must fulfil the obligations incurred on their behalf. So too, the external boundary of a frontier or maritime State is regarded for international purposes as a British frontier,

and Native chiefs can have no admiralty rights save such as are specially allowed to them by the paramount power.

In respect of dealings with other Native States.

The same principle is observed in dealings between one Indian principality and another. Experience had proved that no stable engagements between them were possible. House was set against house, and too often a house was divided against itself. Differences of religion, caste jealousies, the memories of wrongs done in the past, and animosities handed down from generation to generation, divided Brāhmans and Sūdras, Shiahs and Sunnis, Jāts and Sikhs, Rājputs and Marāthās. Suddenly neighbours were required to sheathe their swords and forget their wrongs. The only hope of peace lay in imposing upon all alike the obligation of referring to the British every question or dispute with others. The political isolation of the protected States involves corresponding activity by their protector. If a boundary question is to be adjusted, an amicable arrangement made for the mutual surrender of criminals, or joint action taken to complete a line of railway or canal that passes from State to State, the British Government must arrange the business and its arrangements must be binding upon the parties concerned. Aggressions and breach of engagements must be punished by the suzerain. Instances of this are afforded by the severance of Lāwa from Tonk, owing to the misconduct of the Tonk chief, in 1867, and by the punishment of Bānswāra in the previous year.

In respect of military matters.

Since a chief can neither attack his neighbour nor fall out with a foreign nation, it follows that he needs no military establishment which is not required either for police purposes, for personal display, or for co-operation with the Imperial Government. The treaty made with Gwalior in 1844, and the instrument of transfer given to Mysore in 1881, alike base the restriction of the forces of the State upon the broad ground of protection. The former explained in detail that unnecessary armies were embarrassing to the State itself and the cause of disquietude to others: a few months later a striking proof of this was afforded by the army of the Sikh kingdom of Lahore. The British Government has undertaken to protect the dominions of the Native princes from invasion and even from rebellion within: its army is organized for the defence not merely of British India, but of all the possessions under the suzerainty of the King-Emperor. It follows, therefore, that its allies must not embarrass the military defence of the empire; must render active co-operation in securing the efficiency of the Imperial army; and must take, in times of emergency, the part

assigned to them. Under the first of these three heads comes the limitation of their own forces as to numbers, armament, and equipment. The treaties with most of the larger States are clear on this point. Posts in the interior must not be fortified, factories for the production of guns and ammunition must not be constructed, nor may subjects of other States be enlisted in the local forces. In the second place, the duties of the allies are not merely passive or negative; they are also active. They must allow the forces that defend them to obtain local supplies, to occupy cantonments or positions, and to arrest deserters; and in addition to these services they must recognize the Imperial control over railways, telegraphs, and postal communications as essential not only to the common welfare but to the common defence. As to the third head, it may be observed that the extent of their obligations in time of war rests partly upon treaties, and partly upon good understanding and loyalty, which may be expected to determine all doubtful points should the occasion arise. In the days before general peace had been established, the Company imposed upon the larger States payment for what was called a subsidiary force, or it required them to retain an auxiliary or contingent force ready to act in co-operation with the subsidiary or other troops of the Company. Subsidiary forces were troops of the paramount power stationed in or near the territory of the chief who paid for them, and they were intended to act against invaders from without or, under certain conditions, against disturbers of internal peace. In days when there were no adequate means of communication this system admirably suited the need for prompt action, and it also enabled the Company to plant on the spot a substantial proof of Imperial power and concern. The localities chosen were distant from the centres of British power, and were also, as a rule, those in which danger to the new order was most to be apprehended, as the following list will show: Hyderābād, Mysore, Baroda, Gwalior, Indore, Travancore, Cochin, and Cutch. Other States which have passed away, such as Poona, were supplied with similar forces. Contingent forces represented the reformed troops of the Native States themselves, kept ready to preserve internal order and to act with British troops if need be. They were maintained in Hyderābād, Baroda, Bhopāl, Gwalior, Jodhpur, Kotah, and Pālanpur; but they generally proved neither efficient nor reliable, and after the Mutiny none of them, except the Hyderābād Contingent, which had remained staunch in its loyalty, continued in existence. That force also has now, under arrange-

ments made with the Nizām by Lord Curzon in 1902, been reorganized upon another footing.

The Imperial Service troops.

The Subsidiary and Contingent forces dated from the time when the policy of non-intervention held the field. They were continued under, and were in harmony with, the policy of subordinate isolation. But the changes in modern warfare, requiring, if need be, the mobilization and dispatch of a large army to the external frontiers of India, have involved a change of system. Greater efficiency and better equipment, concerted action upon a prearranged plan, and above all the willing subordination of each State to the general scheme, are required by the altered conditions of the twentieth century. To meet these conditions, several States in Rājputāna, Central India, and the Punjab, as well as Kashmīr, Hyderābād, Mysore, and a few States in Bombay, maintain Imperial Service troops, which now number in all about 18,000 men. These troops, which are under regular inspection by British officers, though available for Imperial service when placed at the disposal of the British Government by their rulers, belong absolutely to the States and are recruited from their subjects. Their armament is the same as that of our Native army, and in training, discipline, and efficiency they have reached a high standard of excellence. They have recently won commendation in China and Somāliland, and have also done good service on the north-west frontier. The other military forces maintained by the Native States aggregate about 93,000 men, but these troops are kept only for purposes of internal order or ceremony and have little military value.

In respect of internal administration.

The broad duties affecting external relations and military defence are common to all States irrespective of the terms of their treaties: they have also, except in matters of detail, undergone little change from one period to the other. The case is otherwise with those obligations which concern the internal administration of the chiefs. Over most States, and over the engagements that record their relations to the paramount power, have passed the usage of many years and the facts of history. The Crown protects one and all, and the suzerain has granted *sanads* of adoption and abandoned the policy of lapse. Although old and unaltered treaties declare that the British Government will have no manner of concern with any of a Mahārājā's dependents or servants, 'with respect to whom the Mahārājā is absolute,' logic and public opinion have endorsed the principle, which Lord Canning set forth in his minute of April 30, 1860, that the Government of India is not precluded

'from stepping in to set right such serious abuses in a Native Government as may threaten any part of the country with anarchy or disturbance, nor from assuming temporary charge of a Native State when there shall be sufficient reason to do so.' Of that necessity the Governor-General-in-Council, subject to the control provided by Parliament, must be the judge from time to time. Liability to intervention in case of grave misrule is an incident common to all the States. There are also some other occasions for interference which are likely to be taken whenever they occur. The dismemberment of a State by division or legacy would destroy the territorial unit upon which the local sovereignty rests. Such arrangements cannot, therefore, be permitted: and value is attached to the principle of primogeniture, or at least to the selection of an heir by a chief during his lifetime, as a means of avoiding disputes between rival claimants or injury to the integrity of the State. Disputed successions and rebellion are no longer tolerated in the interests of public order. The suzerain power, which expects the people to submit quietly to the rule of a protected prince, must therefore restrain him from gross misrule. British public opinion will not tolerate infanticide, *satī*, slavery, or barbarous punishments, and the Government of India has interfered, when necessary, to prevent them. There are, on the other hand, many objects of common welfare in which the paramount power presses for co-operation and tenders advice, but in regard to which it waits for the willing co-operation of the Native princes: such are reforms of administrative or revenue systems, and currency.

Special jurisdiction exercised by the paramount power in Native States in respect of British subjects and foreigners, cantonments, &c.

But it is in the direction of jurisdiction that the widest differences prevail between one State and another. In all of them it is natural that, where the law of British India confers jurisdiction over British subjects or other specified persons in foreign territory, this power should be exercised by the British courts which possess it. By analogy, and in view of the relations of the King-Emperor with European powers and the United States, it is reasonable that their subjects should be put on the same footing in Native States as British subjects of European extraction. But the jurisdiction exercised in some Native States goes far beyond this. It extends sometimes to a territorial population who are neither British officials nor British subjects. In such cases the exercise of jurisdiction in the Native State is justified by the express or tacit consent of its ruler. When a British cantonment, or a civil station under British management, exists in a protected principality, it is

convenient that jurisdiction over all persons and things therein, and not merely over the British troops or officials, should rest with the suzerain power. Sometimes this jurisdiction is conceded by treaty, sometimes it rests upon long usage and acquiescence. There are also, as already explained, petty chiefs whose powers of internal government were, from the very first, restricted to the exercise of a limited jurisdiction in civil or criminal cases. The residue of the full powers of government by which a 'State' is constituted in any territorial area vests in the suzerain power, which shares the internal sovereignty with the chief and exercises all authority that does not remain with him.

Political officers.

The powers which thus devolve upon the suzerain are exercised through political officers who, as a rule, reside in the States themselves. In the larger States the Government of India is represented by a Resident; and where a number of States form a natural group, as in Rājputāna and Central India, there is a single Agent to the Governor-General for the whole group, assisted by local Residents or Political Agents according to the importance of the State or States within it. These officers form the sole channel of communication that the Native States possess with the Government of India in its Foreign Department, with the officials of British India, or with other Native States; and they are expected to advise and assist the ruling chiefs in any matters, administrative or otherwise, on which they may be consulted. As regards the larger States under the control of Local Governments, Political Agents are similarly employed; but in the case of petty States scattered about British Provinces it is usual to entrust the duties of Agent to the Collector or Commissioner within whose territorial jurisdiction they lie. In such cases the Agent does not, as a rule, reside within the Native State; but it is desirable that, when he is exercising judicial or magisterial powers in respect of persons or things within it, he should hold his court within the area of his foreign jurisdiction. It has been seen that the Local Governments control British relations with a very large number of Native princes and chiefs; at the same time their dealings with all protected chiefs are in a special sense under the supervision of the Supreme Government, and in the personal charge of the Governor-General.

Conclusion.

This is not the place for any attempt to weigh the comparative merits of administration in British Provinces and in Native States, or to forecast the development and future prospects of the latter. While the paramount power steadfastly maintains

the rights of Native rulers, lends them the services of its own trained officers, renders them help in time of famine, and admits them and their subjects to its coveted honours[1] and distinctions, it must look to them to reform their administration and act the part of good neighbours. The institutions of Native States are becoming profoundly modified, under modern conditions of communication, by infiltration from what is proceeding around them in British India. All are not, it is true, equally able to assimilate new principles. Their forms of government are almost as various as the races ruled by them. There are States in almost every stage of development, tribal, feudal, and constitutional; but the common features of all of them, even of those which are most advanced, are the personal rule of the chief and his control over legislation and the administration of justice. There is, however, an increasing tendency to follow British models in financial arrangements and educational systems, while many States have adopted civil and criminal laws from the codes of British India. Great stress is now laid upon the education of the sons of chiefs, and upon the proper administration of States during a minority. Chiefs' colleges have been founded at Ajmer, Rājkot, Lahore, and Indore, where a special course of instruction is provided. Tutors and guardians are appointed to take charge of young chiefs not at those colleges, and an Imperial Cadet corps has been established for the military training of scions of ruling and noble families. Lastly, every effort is made to encourage friendly relations between the rulers and their Political Agents, and also with the heads of Local Governments. The Viceroy constantly visits the Native States, invites the chiefs to participate in state ceremonies, such as the great Darbār at Delhi in 1903, and encourages them to visit him at Calcutta, where a house has recently been purchased for their special accommodation.

[1] Among these honours may be specially mentioned the grant of salutes, with a varying number of guns, and the title of His Highness accorded to every ruling chief with a salute of more than ten guns.

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APPENDIX

Statement showing Distribution of Native States, with Particulars as to Area, Population, Revenue, &c.

I. Five large States in direct Political Relations with the Government of India

Name of State.	Area in square miles.	Population in 1901.	Approximate revenue (in lakhs of rupees).	Title, race, and religion of Ruler.	Salute of Ruler in guns.	Designation of local Political Officer.
Nepāl * . . .	54,000	4,000,000 (approximate), Hindus and Buddhists.	1,50	*Mahārājā*, Rājput: Hindu.	21	Resident in Nepāl.
Hyderābād . .	82,698†	11,141,142†, chiefly Hindus and Muhammadans.	3,59	*Nizām*, Turk: Sunni Muhammadan.	21	Resident at Hyderābād.
Mysore . . .	29,444	5,539,399, chiefly Hindus .	1,90	*Mahārājā*, Kshattriya: Hindu.	21	Resident in Mysore.
Baroda . . .	8,099	1,952,692 " "	1,23	*Mahārājā*, Marāthā: Hindu.	21	Resident at Baroda.
Kashmīr and Jammu .	80,900	2,905,578 (including Gilgit, Skārdu, Ladākh, and Pūnch), chiefly Muhammadans.	87	*Mahārājā*, Dogrā Rājput: Hindu.	19 (21 within Kashmīr territory).	Resident in Kashmīr.
Total	255,141	25,538,811	9,09			

* Nepāl differs from the other Native States dealt with in this chapter in that it is independent in respect to its internal administration. Its foreign relations are, however, controlled by the Government of India; it is bound to receive a British Resident; and it cannot take Europeans into its service without the sanction of the Government of India.

† Excluding Berār.

II. 148 *States, forming the Central India Agency, under the Agent to the Governor-General in Central India*

Name of State.	Area in square miles.	Population in 1901.	Approximate revenue (in lakhs of rupees).	Title, race, and religion of Ruler.	Salute of Ruler in guns.	Designation of local Political Officer.
Gwalior .	25,041	2,933,001, chiefly Hindus .	1,63	*Mahārājā*, Marāthā: Hindu.	19 (21 within Gwalior territory).	Resident at Gwalior.
Indore .	9,500	850,690 ,, ,,	72	*Mahārājā*, Marāthā: Hindu.	19 (21 within Indore territory).	Resident at Indore.
Bhopāl .	6,859	665,961 ,, ,,	29	*Nawāb* (m.), *Begam* (f.), Afghān: Muhammadan.	19 (21 within Bhopāl territory).	Political Agent in Bhopāl.
Rewah .	13,000	1,327,385 ,, ,,	29	*Mahārājā*, Baghel Rājput: Hindu.	17	Political Agent in Baghelkhand.
Orchhā .	2,080	321,634 ,, ,,	6	*Mahārājā*, Bundelā Rājput: Hindu.	17 (including 2 guns personal to the present chief).	Political Agent in Bundelkhand.
Datiā . .	911	173,759 ,, ,,	9	*Mahārājā*, Bundelā Rājput: Hindu.	15	,, ,,
Dhār . .	1,775	142,115 ,, ,,	11	*Rājā*, Ponwār Marāthā: Hindu.	15	Political Agent in Bhopāwar.
Jaorā . .	568	84,202 ,, ,,	9	*Nawāb*, Pathān: Muhammadan.	13	Political Agent in Mālwā.
Pannā .	2,492	192,986 ,, ,,	5	*Mahārājā*, Bundelā Rājput: Hindu.	11	Political Agent in Bundelkhand.
Chhatarpur.	1,115	156,139 ,, ,,	4	*Mahārājā*, Ponwār Rajput: Hindu.	11	,, ,,
Charkhārī .	703	123,954 ,, ,,	4	*Mahārājā*, Bundelā Rajput: Hindu.	11	,, ,,
137 Minor States*.	13,351	1,538,491 ,, ,,	80	. . . . .	. . . . .	Distributed through the charges of the above-mentioned officers.
TOTAL	77,395	8,510,317	4,21			

* Of these, however, sixteen are not really States, as their chiefs now possess no land but only guaranteed cash revenues.

III. Twenty States, forming the Rājputāna Agency, under the Agent to the Governor-General in Rājputāna

Name of State.	Area in square miles.	Population in 1901.	Approximate revenue (in lakhs of rupees).	Title, race, and religion of Ruler.	Salute of Ruler in guns.	Designation of local Political Officer.
Udaipur (Mewār).	12,691	1,018,805, chiefly Hindus and Bhīls.	24	*Mahārānā*, Sesodia Rājput: Hindu.	21 (including 2 guns personal to the present chief).	Resident in Mewār.
Jaipur . .	15,579	2,658,666, chiefly Hindus	62	*Mahārājā*, Kachwāha Rājput: Hindu.	21 (including 4 guns personal to the present chief).	Resident at Jaipur.
Jodhpur (Mārwār).	34,963	1,935,565 " "	56	*Mahārājā*, Rāthor Rājput: Hindu.	17	Resident in the Western States of Rājputāna.
Bharatpur .	1,982	626,665 " "	35	*Mahārājā*, Jāt: Hindu.	17	Political Agent in the Eastern States of Rājputāna.
Bīkaner . .	23,311	584,627 " "	23	*Mahārājā*, Rāthor Rājput: Hindu.	17	Political Agent in Bīkaner.
Kotah . .	5,684	544,879 " "	33	*Mahārao*, Hāra Chauhān Rājput: Hindu.	17	Political Agent in Kotah and Jhālawār.
Tonk (partly in Central India).	2,553	273,201 " "	13	*Nawāb*, Pathān: Muhammadan.	17	Political Agent in Haraoti and Tonk.
Carried over	96,763	7,642,408	2,46			

III. Twenty States, forming the Rājputāna Agency, under the Agent to the Governal-General in Rājputāna—continued

Name of State.	Area in square miles.	Population in 1901.	Approximate revenue (in lakhs of rupees).	Title, race, and religion of Ruler.	Salute of Ruler in guns.	Designation of local Political Officer.
Brought forward	96,763	7,642,408	2,46			
Būndi . .	2 220	171,227, chiefly Hindus.	7	*Mahārao Rājā*, Hāra Chauhān Rajput: Hindu.	17	Political Agent in Haraoti and Tonk.
Karauli . .	1,242	156,786 " "	5	*Mahārājā*, Jādon Rājput: Hindu.	17	Political Agent in the Eastern States of Rājputāna.
Alwar . .	3,141	828,487 " "	30	*Mahārājā*, Kachwāha Rājput: Hindu.	15	Political Agent in Alwar.
Dholpur .	1,155	270,973 " "	10	*Mahārājā Rānā*, Jāt: Hindu.	15	Political Agent in the Eastern States of Rājputāna.
Bānswāra .	1,946 including Kushālgarh.	165,350, chiefly Animists (Bhīls).	1½	*Mahārāwal*, Sesodia Rājput: Hindu.	15	Assistant to the Resident in Mewār.
Sirohi . .	1,964	154,544, chiefly Hindus.	3	*Mahārao*, Deora Chauhān Rājput: Hindu.	15	Resident in the Western States of Rājputāna.
7 Minor States	20,487	451,990 . . .	17½	. . . . . .	. .	Distributed through the charges of the above-mentioned officers.
TOTAL	128,918	9,841,765	3,20			

IV. Two States included in the Baluchistān Agency, under the Agent to the Governor-General in Baluchistān

Name of State.	Area in square miles.	Population in 1901.	Approximate revenue (in lakhs of rupees).	Title, race, and religion of Ruler.	Salute of Ruler in guns.	Designation of local Political Officer.
Kalāt . .	71,593	372,531*, chiefly Sunni Muhammadans.	8	*Khān* or *Wālī*, Brāhui: Sunni Muhammadan.	19	Political Agent in Kalāt.
Las Bela .	6,441	56,109 ,,	2	*Jām*, Kureshi Arab: Sunni Muhammadan.	*Nil*	,, ,,
TOTAL	78,034	428,640	10			

* This is the census figure as modified with reference to a subsequent transfer of territory to British administration: the population of Khārān and Makrān is estimated further at about 98,000.

V. States in Political Relations with Local Governments

(*a*) Madras (Five States)

Name of State.	Area in square miles.	Population in 1901.	Approximate revenue (in lakhs of rupees).	Title, race, and religion of Ruler.	Salute of Ruler in guns.	Designation of local Political Officer.
Travancore .	7,091	2,952,157, chiefly Hindus and Christians.	1,00	*Mahārājā*, Kshattriya: Hindu.	21 (including 2 guns personal to the present chief).	Resident in Travancore and Cochin.
Cochin .	1,362	812,025 ,,	27	*Rājā*, Kshattriya: Hindu.	17	,, ,,
Pudukkottai .	1,100	380,440, Hindus.	11	*Rājā*, Kallar: Hindu.	11	Collector of Trichinopoly (*ex-officio* Political Agent).
2 Minor States	416	43,464	3			
TOTAL	9,969	4,188,086	1,41			

(*b*) Bombay (354 States)

Name of State.	Area in square miles.	Population in 1901.	Approximate revenue (in lakhs of rupees).	Title, race, and religion of Ruler.	Salute of Ruler in guns.	Designation of local Political Officer.
Kolhāpur .	2,855	910,011, chiefly Hindus.	48	*Mahārājā*, Kshattriya : Hindu.	19	Political Agent for Kolhāpur.
Cutch . .	7,616	488,022 ,,	20	*Mahārao*, Jādeja Rājput : Hindu.	17	Political Agent in Cutch.
Khairpur .	6,050	199,313, chiefly Muhammadans.	13	*Mīr*, Tālpur Baloch : Muhammadan.	15	Political Agent for Khairpur.
Idar . .	1,900	168,557, chiefly Hindus.	5	*Mahārājā*, Rāthor Rājput : Hindu.	15	Political Agent for Mahī Kāntha.
Bhaunagar .	2,860	412,664 ,,	30	*Thākur Sāhib*, Gohel Rājput : Hindu.	11	Agent to the Governor in Kāthiāwār.
Junāgarh .	3,284	395,428 ,,	27	*Nawāb*, Pathān : Muhammadan.	11	,, ,,
Navānagar .	3,791	336,779 ,,	31	*Jām*, Jādeja Rājput : Hindu.	11	,, ,,
Pālanpur .	3,177	222,627 ,,	7	*Dīwān*, Pathān : Muhammadan.	11	Political Agent for Pālanpur.
Gondal .	1,024	162,859 ,,	19	*Thākur Sāhib*, Jādeja Rājput : Hindu.	11	Agent to the Governor in Kāthiāwār.
Rājpīpla .	1,514	117,175 ,,	7	*Mahārānā*, Gohel Rājput : Hindu.	11	Political Agent, Rewā Kāntha.
Bhor . .	1,491	137,268 ,,	5	*Pant Sachiv*, Brāhman : Hindu.	9 (personal to the present chief)	Collector of Pōona (*ex-officio* Political Agent).
Sāngli . .	1,112	226,128 ,,	9	*Thākur*, Brāhman : Hindu.	*Nil*	Political Agent for the Southern Marāthā Country.
342 Minor States. .	29,087	3,131,817	1,99			
TOTAL	65,761	6,908,648	4,20			

(*c*) Bengal (30 States)

Name of State.	Area in square miles.	Population in 1901.	Approximate revenue (in lakhs of rupees).	Title, race, and religion of Ruler.	Salute of Ruler in guns.	Designation of local Political Officer.
Sikkim . . .	2,818	59,014, chiefly Buddhists and Hindus.	1	*Mahārājā*, Tibetan : Buddhist.	15	Political Officer, Sikkim.
Cooch Behār. .	1,307	566,974, chiefly Hindus and Muhammadans.	24	*Mahārājā*, Kshattriya : Brahmo.	13	Commissioner of Rājshāhi (*ex-officio* Political Agent).
Hill Tippera * .	4,086	173,325, chiefly Hindus.	7	*Rājā*, Kshattriya : Hindu.	13	Commissioner of Chittagong (*ex-officio* Political Agent).
Bhutān . . .	20,000†	250,000†, Buddhists.	2	*Deb Rājā*, Bhotiā : Buddhist.	*Nil*	Commissioner of Rājshāhi (*ex-officio* Political Officer).
Mayūrbhanj (Orissa Tributary Mahāls).	4,243	610,383, chiefly Hindus.	8	*Rājā*, Kshattriya : Hindu.	*Nil*	Commissioner of Orissa (*ex-officio* Superintendent of the Orissa Tributary Mahāls).
Surgujā ‡ (Chotā Nāgpur Tributary Mahāls).	6,055	351,011 ,,	1	*Rājā*, Ruksel Rājput : Hindu.	*Nil*	Commissioner of Chotā Nāgpur (*ex-officio* Superintendent of the Chotā Nāgpur Tributary Mahāls).
Keonjhar (Orissa Tributary Mahāls).	3,096	285,758 ,,	3	*Rājā*, Rājput : Hindu.	*Nil*	Commissioner of Orissa (*ex-officio* Superintendent of the Orissa Tributary Mahāls).
Dhenkānāl (Orissa Tributary Mahāls).	1,463	273,662 ,,	4	*Rājā*, Kshattriya : Hindu.	*Nil*	,, ,,
Gāngpur (Chotā Nāgpur Tributary Mahāls).	2,518	238,896 ,,	1	*Rājā*, Kshattriya : Hindu.	*Nil*	Commissioner of Chotā Nāgpur (*ex-officio* Superintendent of the Chotā Nāgpur Tributary Mahāls).
21 Minor States .	13,066	1,189,521	27			
TOTAL	58,652	3,998,544	78			

* [illegible] transferred to the new Province of Eastern Bengal and Assam.

† The figures for Bhutan are estimates only.

(*d*) United Provinces (2 States)

Name of State.	Area in square miles.	Population in 1901.	Approximate revenue (in lakhs of rupees).	Title, race, and religion of Ruler.	Salute of Ruler in guns.	Designation of local Political Officer.
Rāmpur .	899	533,212, chiefly Hindus and Muhammadans.	33	*Nawāb*, Pathān: Muhammadan.	13	Commissioner of Bareilly (*ex-officio* Political Agent).
Tehrī (Garhwāl).	4,180	268,885, chiefly Hindus.	3	*Rājā*, Kshattriya: Hindu.	11	Commissioner of Kumaun (*ex-officio* Political Agent).
TOTAL	5,079	802,097	36			

(*e*) Punjab (34 States)

Name of State.	Area in square miles.	Population in 1901.	Approximate revenue (in lakhs of rupees).	Title, race, and religion of Ruler.	Salute of Ruler in guns.	Designation of local Political Officer.
Bahāwalpur .	15,000	720,877, chiefly Muhammadans.	24	*Nawāb*, Daudputra : Muhammadan.	17	Political Agent for the Phūlkiān States and Bahāwalpur.
The Phūlkiān States. Patiāla .	5,412	1,596,692, chiefly Hindus and Sikhs.	57	*Mahārājā*, Sidhū Jāt : Sikh.	17	" "
The Phūlkiān States. Nābha .	928	297,949 "	12	*Rājā*, Sidhū Jāt : Sikh.	15 (including 4 guns personal to the present chief).	" "
The Phūlkiān States. Jīnd .	1,259	282,003 "	15	" "	11	" "
Kapūrthala .	630*	314,351, chiefly Muhammadans and Hindus.	13	*Rājā*, Ahlūwālia : Sikh.	11	Commissioner of the Jullundur Division (*ex-officio* Political Agent).
Mandi . .	1,200	174,045, chiefly Hindus.	5	*Rājā*, Chandrabansi Rājput : Hindu.	11	" "
Sirmūr (Nāhan).	1,198	135,687 "	5	*Rājā*, Rājput : Hindu.	11	Commissioner of the Delhi Division (*ex-officio* Political Agent).
Chamba .	3,216	127,834 "	3	" "	11	Commissioner of the Lahore Division (*ex-officio* Political Agent).
Farīdkot .	642	124,912, Sikhs, Hindus, Muhammadans.	4	*Rājā*, Barār Jāt : Sikh.	11	Commissioner of the Jullundur Division (*ex-officio* Political Agent).
25 Minor States	7,047	650,048 "	17			
TOTAL	36,532	4,424,398	1,55			

* The Raja of Kapurthala also holds large estates in Oudh (about 700 square miles).

(*f*) Burma (52 States*)

Name of State.	Area in square miles.	Population in 1901.	Approximate revenue (in lakhs of rupees).	Title, race, and religion of Ruler.	Salute of Ruler in guns.	Designation of local Political Officer.
(*a*) *Northern Shan States.*						
Hsīpaw (Thībaw).	5,086	104,700, Buddhists.	3	*Sawbwa*, Shan: Buddhist.	9	Superintendent, Northern Shan States.
5 Minor States	9,508	216,390 ,,	2	. . . . . .	. . .	
(*b*) *Southern Shan States.*						
Kengtung .	12,000	190,698 ,,	1	*Sawbwa*, Shan: Buddhist.	9	Superintendent, Southern Shan States.
Möngnai .	2,717	44,252 ,,	½	*Sawbwa*, Shan: Buddhist.	9	
Yawnghwe .	2,400	95,339 ,,	1½	*Sawbwa*, Shan: Buddhist.	*Nil*	
35 Minor States	21,374	440,270, Buddhists and Animists.	4	. . . . . .	. . .	
(*c*) 5 Karen States	4,830	45,795 ,,	½	. . . . . .	. . .	
(*d*) 3 Minor States under separate political control.	9,096	40,543† ,,	1†			
TOTAL (approximate)	67,011	1,177,987	13½			

* All these States, with the exception of the five Karen States forming Karenni, are included in British India, as defined on pp. 59, 60.

† Excluding population and revenue of Kantgye, which are unknown.

CHAPTER IV

FOREIGN RELATIONS

Powers of the East India Company and its Governor-General in regard to foreign relations.

THE East India Company, at a very early period in its career, regarded the approaches to its possessions as a matter for its concern, and as a legitimate charge upon its purse. The Charter of Charles II, in 1661, empowered the Company to make peace or war with any prince not Christian. The Regulating Act of 1773 conferred upon the Governor-General of Bengal exclusive power as against the subordinate Presidencies, save in cases of imminent necessity, to declare war or conclude treaties with Indian princes or powers. It has been shown in the preceding chapter that, in 1793, Commissioner Eyre dismissed the bill in the Chancery proceedings between the Nawāb of Arcot and the Company, because it was 'a case of mutual treaty between persons acting in that instance as States independent of each other, and the circumstance that the East India Company are merely subjects with relation to this country has nothing to do with that.' The Charter Act of 1793 again recognized the Company's position in regard to foreign relations, although it reserved the powers of declaring war, or entering into treaties involving war or guarantee of possessions, for the Court of Directors or the Secret Committee, except in certain specified cases; and the Act of 1813 added the following reservation: 'provided that nothing in this Act contained shall extend, or be construed to extend, to prejudice or affect the undoubted sovereignty of the Crown of Great Britain and Ireland in and over the said territorial acquisitions [of the Company].' The constitutional and legal position of the Company created by these several enactments is described by Wheaton as not equivalent to that of a state, 'even whilst it exercised the sovereign powers of war and peace without the direct control of the Crown, and still less can it be so considered since it has been subjected to that control. Those powers are exercised by the East India Company in subordination to the supreme power of the British Empire, the external sovereignty of which is represented by the Company towards the Native

princes and people, whilst the British Government itself represents the Company towards other foreign sovereigns and states.'

Occasional overlapping of the spheres of Indian and Imperial diplomacy in the days of the Company.

While the means of rapid communication were wanting between Calcutta and Bombay, and between India and London, considerable confusion was apt to arise in fields of diplomacy simultaneously occupied by different authorities distant from each other. The most conspicuous instance of this confusion was afforded by the dispatch to Teherān of Sir Harford Jones as His Majesty's Envoy sent, with the sanction of the Court of Directors, by the Home Government, and the commission entrusted to Sir John Malcolm by the Governor-General, Lord Minto. On the arrival of Sir Harford Jones at Bombay, in 1808, he was ordered by the Governor-General to remain there and await the result of the negotiations entrusted to the agent of the Government of India. Sir John Malcolm's reports soon indicated the failure of his efforts, and Sir Harford Jones was then allowed to proceed to Teherān. He had attained some measure of success when the Governor-General, having meanwhile conferred with Malcolm, decided upon the dispatch of a military expedition. Sir Harford was thereupon ordered to return to India, and his public character was disavowed by the Governor-General. On the other hand, orders sent from London required him to stay; and since he had, in March, 1809, concluded a preliminary treaty with the Shāh, he remained at Teherān awaiting further instructions. The Indian authorities formally protested against the transfer of diplomatic relations with Persia from Calcutta to London and, to support their claim, again dispatched Sir John Malcolm to Teherān; but he was compelled to leave Persia after a few weeks on the arrival of Sir Gore Ouseley, the King's fresh representative, by whom a definitive treaty was concluded in March, 1812. Even at a much later date, during the Crimean War, some confusion was threatened by the communication of orders from England to the Government of Bombay without reference to the Governor-General. On that occasion Colonel Rawlinson, the Political Agent in Turkish Arabia, made proposals for the dispatch of troops, and the supply of funds, from Bombay in a letter addressed to Lord Clarendon; and the Court of Directors, having received suggestions on the same subject from the Government of Bombay, issued direct orders to that Presidency. The Marquis of Dalhousie protested against this procedure, observing that 'operations in the Persian Gulf will affect not Bombay only, but the whole of India.'

Modifications consequent on the direct government of India by the Crown.

The introduction of the telegraph system into India, and the work of territorial consolidation completed by Lord Dalhousie, removed the necessity which had existed under different conditions for giving to the local authorities in Western India powers in the distant field of diplomacy which are no longer exercised by them. Similarly, when the Crown assumed the direct government of India, some of the extensive powers which had devolved upon the Company naturally passed into the hands of the Imperial authorities, and the statute 21 & 22 Vict., cap. 106, sec. 67, declared that all treaties made by the Company should be binding upon Her Majesty. Some portions of the former foreign relations of India have, in consequence, been transferred to the Foreign Office of the Imperial Government, others to the Colonial Office, while in certain fields of activity, as in Persia, officers representing the interests of India still work side by side with the agents of Imperial control. In India itself the Local Governments have practically ceased to be concerned with the external affairs of India; and where, as at Aden, the Government of Bombay still exercises authority beyond the seas, it is under the supervision and control of the Governor-General-in-Council.

Spheres of the Company's authority outside India.

So long as the Company largely managed its own affairs, the sphere of its foreign relations was therefore more extensive than that which now falls to the Government of India. When the Dutch and the British fell out in India, their contests were not confined to the soil of Bengal or Madras. Thus the Madras Government concluded, in 1795, a treaty of alliance with the king of Kandy, and in the following year assumed the government of the Dutch settlements in Ceylon. Kandy was annexed in 1815, and the sovereignty over the whole island was then vested in the Crown. The Company took possession of St. Helena in 1658, but the Dutch recovered it in 1671. Upon the restoration of British authority in 1673, the king regranted the island to the Company as lords proprietors, subject to allegiance to His Majesty, and the Court of Directors appointed the Governor and Council and administered the possession until 1834. Lord Wellesley's projects against Mauritius and Batavia, and his dispatch of an Indian force under General Baird to Cairo in 1800, afford other instances of the wide conception entertained by the Governors-General of Indian responsibilities and foreign interests. The Straits Settlements were under the Company's rule, and were transferred to the Colonial Office as recently as 1867. Penang, afterwards called Prince of Wales Island, in the Straits of Malacca, was acquired

by treaty with the king of Khedah and was taken possession of, in 1786, under the authority of the Bengal Government. There, too, the administration was entrusted to a Governor-in-Council. Lord Hastings sent Sir Stamford Raffles in 1819 to acquire Singapore, and this led to negotiations with the Dutch, which were conducted at home and concluded by a treaty in 1824. Under this treaty the British withdrew from Sumatra, and the Company ceded Bencoolen and its dependencies to the Dutch, who on their part transferred to the British all their possessions in India, including Chinsura and their factories at Balasore and Dacca, and the settlement of Malacca, with undisputed possession of Singapore. In 1825 the Court of Directors united their three settlements at Prince of Wales Island, Singapore, and Malacca under a Governor-in-Council, subject to the Supreme Government at Calcutta. This part of the Company's administration opened the way to several engagements with the neighbouring chiefs. While the field of foreign relations was thus extended in the east, the Company was not less active on the coasts of Arabia and the Persian Gulf. Zanzibar was in direct relations with the Government of Bombay until 1872, when its affairs were transferred to the Government of India, from which they passed, in 1883, into the hands of the Imperial Government. On the east coast of Africa the authorities at Bombay concluded a treaty in 1827, at Berbera, with the Somāli Habar Awal tribe, and with Zeila and Tajūra in 1840. The charge of the Somāli coast was in 1898 transferred to the Foreign Office.

Present responsibilities of the Indian Government outside India.

At the present time the recognized and direct responsibilities of the Indian Government outside India are limited to Arabia, with the fortress at Aden and the adjoining protectorate; the islands of Perim and Sokotra, and the Kuria Muria islands; the Persian Gulf and parts of Persia; Afghānistān and Tibet; and, to a certain extent, China and Siam.

The settlements of Aden and Perim.

Aden, whose internal affairs are under the administration of the Government of Bombay, is the most important centre of Indian influence on the coast of Southern Arabia. Perim, an island in the narrow strait that connects the Red Sea with the Indian Ocean, was occupied in 1799 by a force sent from Bombay. The entire absence of fresh water had not been anticipated or provided for; and, after much suffering and loss of life, the garrison was withdrawn to Aden as soon as naval operations in the Mediterranean had removed the danger of a French expedition. In 1854 a French engineer visited and surveyed the island, letting it be known that he had recommended his

Government to occupy it. This led to a British officer being dispatched from Aden to resume possession of it (1857), and it has since remained an integral part of the territories of British India. Although unfortified, it is valuable as a coaling station and as a post of observation and report. Aden was secured between the first and final occupations of Perim. The Sultān of Lāhej, in whose territories the fortress was situated, had, as above stated, received the remnant of the detachment sent from Perim, and he then offered to grant the promontory as a permanent station. The offer was declined, but a commercial treaty was concluded with the Sultān. The crews of British vessels wrecked on the coast were at a subsequent date plundered and ill-treated; satisfaction having been refused, coercion was resorted to, and in January, 1839, Aden was taken. The British, once established on the rocky promontory, were of necessity brought into political relations with the chief of Lāhej, whose tribe, the Abdalis, exercised paramount influence over their neighbours. The maintenance of communications with the interior, in order to secure supplies and to promote commerce, led in course of time to direct and more efficacious engagements with the other tribes, who were thus gradually recognized as independent of the Abdalis. The Ottoman Sultān, whose dominion includes Yemen, then asserted his claim to the whole of Arabia. The British Government, on the other hand, held that the chiefs in the vicinity of Aden were independent, and informed the Porte that the relations of these chiefs with the authorities at Aden prevented the Government of India from viewing with indifference any attempt to alter their position. Formal communications were made in 1873, announcing that the British regarded the nine tribes of the Abdali, the Fadhli, the Akrabi, the Haushabi, the Alawi, the Amīrī, the Subaihi, the Yafai, and the Aulaki as included in the former notification. A Turkish force which had been sent to Lāhej was then withdrawn, and the Governor-General of Yemen was directed to abstain from any interference with these tribes. A joint Commission representing the British and Turkish Governments delimitated the frontier of the Aden Protectorate in 1903-4, and various treaties have been made with sub-sections of the nine tribes, which define their obligations to the Government of India and fix the annual stipends due to them. The safety of the trade-routes, the peace of the country, and the maintenance of friendly relations with the Aden authorities are the main object of these engagements.

The tribal territory adjoining Aden.

Sokotra.

The island of Sokotra lies about 150 miles off Cape

Guardafui. British relations were entered into with its Māhri chief in 1834, when he agreed to permit a coal depôt to be established there. The subsequent occupation of Aden rendered this concession of no value; but the advantage of the island as a refuge for shipwrecked crews, or as a station for a lighthouse, led to the continuance of close and friendly relations with its rulers. In 1886 a formal protectorate was established over the Sultān, who undertook to enter into no arrangements with any foreign powers except with the sanction of the British Government.

The Arab coast from Bāb el Mandeb to Maskat.

Along the Arab coast, or Hadramaut, extending from Shaik Sayad in the Straits of Bāb el Mandeb to the limits of Maskat at Rās Sair, every maritime tribe has been brought under the protection of the British Government. With some of them relations had been established at an earlier date; but in 1890 the Governor-General ratified a complete set of engagements with the Shaikh of Irka, and with the Atiffi, Barhemi, Akrabi, Fadhli, Lower Aulaki, Duyabi, Kayeti, Wahidi, and Māhri tribes, by which these bound themselves to enter into no correspondence or treaties with any foreign nation or power except with the sanction of the British Government, and to give immediate notice of any attempt to interfere with their country and its dependencies.

From Rās Sair onwards the coast line begins to lie within the sphere of influence, or the direct dominion, of the Sultān or Imām of Maskat, between whom and the Indian Government close relations have long existed. In 1798 the Company entered into an agreement with the Sultān to exclude the French and the Dutch from settling either in Maskat or Gombroon (Bandar Abbās). In the next century the British co-operated with the Sultān in the suppression of piracy, secured his assistance for the abolition of slavery, and entered into a commercial treaty. They frequently intervened to protect the ruler, to settle the succession, and even to put down rebellion, and in 1862 they engaged reciprocally with the French Government to respect the independence of the Sultān. When Zanzibar was severed from Maskat in 1861, they used their good offices to fix the annual subsidy to be paid by the former to the latter, and made arrangements to ensure its regular payment. The Sultān on his part has granted consular jurisdiction to the British Agent, and has rendered help in the suppression of the traffic in arms with the Indian and Persian coast. About 75 per cent. of the total value of the foreign trade of Maskat is with India.

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From Khor Kalba to Dibba the Batineh coast forms part of the territory of the Shaikh of Shargah. The Shihūh tribe occupy the country from Dibba round the Musandam promontory to Rams, south of Tibba. From Rās-el-Kheima as far as and including Odeid the coast belongs to the 'Trucial' Chiefs[1]. At the beginning of the last century the acts of piracy committed by the Arab chiefs, and especially by those living on this coast, created a reign of terror in the Gulf. The East India Company was forced to take strong measures, and in 1819 it dispatched an expedition to bring these sea-robbers to subjection. A general treaty was then made with them for the suppression of slavery, for the definition of acts of piracy, and for securing to the Company's vessels rights of search and confiscation of slave vessels. Indian and British ships constantly patrolled the Gulf, and the naval and political authorities punished infractions of these engagements, until at last peace and order were established. On the coast the several chiefs were left to settle their own disputes in their own way; but their hostilities at sea were restricted, and finally altogether forbidden by the establishment, in 1853, of a lasting and general peace. The chiefs of Abu Dhābi, Dabai, Shargah, Ajman, Umm-ul-Kawain, and Rās-el-Kheima agreed to refer their quarrels to the arbitration of the British Government, to whom was entrusted the maintenance of the peace of the Gulf and the power of punishing any infraction of it. Measures were also taken for the protection of the British lines of telegraph, one of which has lately been extended to Maskat. Although the chiefs are free to manage their own affairs on land, including the succession to the chiefship, they at times seek the advice of the Resident in respect of such matters, or British confirmation of their title to succeed. In this way their relations with the Indian Government tend constantly to become more intimate.

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The portion of the Arab coast north of Odeid, on the El Katr promontory opposite Bahrein, is one of special interest to the Indian Government, which protects Bahrein and controls the pirate coast. Odeid itself belongs to the chief of Abu Dhābi, who has already been mentioned as one of those in treaty relations with the Government of India. At the town of El Bidaa a small Turkish garrison has been established since 1872; but this occupation has not been recognized as bringing El Katr within Ottoman jurisdiction, and does not preclude

[1] The name is derived from the truce, now a lasting peace, which prevents hostilities at sea between these chiefs: see below.

such action, whether at El Bidaa or at other places on the El Katr coast, as may be necessary to prevent, or punish, disturbance of the maritime peace. From Katīf town to Koweit Ottoman rule is established and recognized. The Shaikh of Koweit is under treaty obligations with the Government of India in respect of that port (which is visited by a Political Agent) and its neighbourhood. Beyond those limits the sovereignty of the Ottoman Government extends along the coast to Basra.

Turkish Arabia. The paramount interests of the Indian Government in the peace and commerce of the Persian Gulf, its protectorate over Bahrein, and its relations with the Trucial Chiefs on the pirate coast give rise to intercourse with the Turkish authorities in Arabia. The Government of India is also under special obligation to protect the stream of Muhammadan pilgrims who resort to the sacred places at Mecca and Kerbela, and to administer the fund, created by a treaty of 1825 with the king of Oudh, from which annual payments of Rs. 1,20,000 are made to the high priest and the *mujtahids* residing at the Shiah shrines of Kerbela and Nejef. Indian interests at these places are watched over by a Political Resident in Turkish Arabia, who is also Consul-General at Baghdād; by a vice-consul at Kerbela; and by officers stationed at Jedda, Hodeida, and the island of Kamaran.

Islands in the Persian Gulf. Various islands in the Persian Gulf have in time past been occupied by the British. Kharak was thus held between 1838 and 1842, and the British Residency was transferred to it from Bushire. In 1856, when Persia captured Herāt, Kharak was again occupied, but was evacuated after the ratification of the Treaty of Paris, in 1857. A British station still remains at Bassidore, on the island of Kishm, although the troops which occupied it have, for the present, been withdrawn. But the most important island in the Gulf is Bahrein, which has passed under several dominions or suzerainties. In 1622 the Portuguese, who had previously acquired possession of it, were expelled by the Persians. The Atabi tribe made themselves masters of the island in 1783, and in 1800 the Sultān of Maskat wrested it from them. On his expulsion a year after, the Wahābis held suzerainty over Bahrein until 1810, when the Atabis again established their authority. In the course of the operations undertaken by the Company against the pirate coast, to which reference has already been made, the British entered (in 1820) into an engagement with the Atabi rulers of Bahrein, with the object of preventing their abetment of piracy and of including them in the general scheme of maritime peace.

Bahrein.

On several occasions after the conclusion of that agreement the chief of Bahrein was protected against claims put forward by Egypt, Persia, and Turkey, who have each asserted sovereignty over the island, the British Government maintaining that the Shaikh was an independent prince in alliance with the Government of India. In pursuance of these relations, the British have interfered to punish breaches of the peace, to settle the succession, and to adjust differences between the chiefs of El Katr and Bahrein. In 1847 Shaikh Muhammad bin Khalīfa entered into a convention with the British Resident for the prevention of the African slave-trade in his ports; and in 1856 his successor further agreed to seize and deliver to British vessels of war slaves imported from any quarter, and to place an embargo upon vessels belonging to himself or his subjects that might have engaged in the trade. In 1861 the chief subscribed to a perpetual treaty of peace and friendship, for the advancement of trade and the security of all persons navigating or residing upon the coasts of the Persian Gulf. In 1880 Shaikh Isā bin Alī signed an agreement binding himself to enter into no negotiations or treaties with any other state, and to refuse permission to any such power to establish diplomatic or consular agencies, or coaling depôts, in his territory, except with the consent of the British Government. More recently the chief has entered into an agreement for the restriction of the trade in arms and ammunition. The Government of India has an Agent stationed on the island, who, in common with the Agent at Maskat and other political officers residing in the Gulf, is subordinate to the Resident in the Persian Gulf, at Bushire.

Relations with Persia.

The conduct of political relations with Persia rests mainly with the Imperial Government. Nevertheless, there are certain matters connected with Persian territory which lie under the special control of the Government of India; and the general interest of India in Persia is evinced by the fact that the Royal Commission on the Administration of the Expenditure of India, in their final report of 1900, recommended that the charges of the legations and consulates in that country should be evenly divided between India and the United Kingdom. At one time (between 1823 and 1834) the Persian mission was wholly supported from Indian revenues, but in 1835 the East India Company fixed its annual contribution towards the cost of it at £12,000. When the Crown took over the government of India, the Imperial Government undertook to contribute a sum of £5,000 a year on account of the Teherān mission,

which was then transferred to the Indian Government. In the following year the mission was restored to the Foreign Office, under an arrangement by which Indian revenues bore $\frac{11}{47}$ths of the cost up to a maximum of £12,000, and this arrangement continued, with successive reductions of the limiting maximum, until action was taken on the report of the Royal Commission referred to above. After 1859 the British Minister at Teherān, and the majority of the consular officers stationed in Persia, were drawn from the Imperial service, and continued until recently to be so recruited; while the Resident at Bushire, the Assistant Resident at Bandar Abbās, and the Director of Telegraphs in charge of the Makrān coast were directly subordinate to the Government of India. Under the latest arrangements the distribution of consular offices in Persia between the Indian and the Imperial (Levant) services assigns to the former two Consuls-General—one for Khorāsān and Seistān, stationed at Meshed, and another at Bushire for Fārs, Khuzistān, and the coasts and islands of the Gulf within the dominions of Persia; consuls in Seistān, and at Kermān and Kermānshāh; and vice-consuls at Bandar Abbās, Ahwāz (for Arabistān), and at Bām. The Imperial (Levant) service supplies the consular posts at Ispahān, Tabrīz, Shīrāz, Resht, Teherān, and Mohammerah. The political interests of the Indian Government in Persian affairs are therefore partly safeguarded by the Imperial Foreign Office, in which case correspondence passes through the Secretary of State for India, and partly by the Governor-General, in which case the Indian authorities keep the Foreign Office informed of their proceedings through the Secretary of State.

Persia, Afghānistān, and India.

Apart from the graver international questions which concern Persia's foreign relations with European powers, there are many others of less importance that directly and particularly affect the Government of India. Throughout the eighteenth and nineteenth centuries the rulers of Persia and Afghānistān lost no opportunity for asserting their claims to dominion over each other's territories, and the engagements which now compel them to keep the peace were for the most part concluded with the British Government, which still enforces their execution. In 1722 the Afghān, Mahmūd, occupied Ispahān with a victorious army. Within eight years the Afghāns were expelled by Nādir Shāh, who, in 1736, set aside the old Safavid dynasty of Persia. The tide of conquest now flowed eastward: Kābul and Kandahār were annexed to Persia, and the plains of the Punjab devastated. The assassination of Nādir Shāh in 1747

led to internal disorder, of which Ahmad Shāh Abdāli, founder of the Durrāni family, took advantage by seizing Khorāsān. The establishment of the present ruling dynasty, the Kājārs, under Aghā Muhammad in 1779, once more restored the integrity of the Persian kingdom. Fateh Alī Khān, who succeeded him in 1797, lost no time in entering into engagements with the Indian Government for the promotion of trade and a political alliance. About this period Persia was fully occupied by its differences with Russia, which ended in a long war, while the Afghān ruler, Zamān Shāh, was intent upon intervening in the affairs of Delhi, and taking part in the final struggle with the Marāthās for empire. It was, therefore, to the interest of the East India Company to secure the assistance of Persia in the event of an Afghān invasion of the Punjab. Peace between Russia and Persia was concluded in 1828, and the Kājār Shāh then commenced preparations for an attack upon Herāt. His designs were prosecuted with vigour by his grandson Muhammad Shāh, who commenced the siege of Herāt in November 1837, and was only thwarted by the brilliant defence of Eldred Pottinger and the occupation of the island of Kharak by a force dispatched from Bombay. Meanwhile events were occurring in India which induced the Government to take an active interest in Afghān affairs. The Sadozais and the Bārakzais were the two rival branches of the Durrāni family whom Ahmad Shāh had raised to power. The Sadozai ruler of Kābul, Shāh Shujā, expelled by the Bārakzai, Dost Muhammad, had taken refuge in the Punjab, where Ranjīt Singh had established a strong Sikh State. The British undertook to re-establish Shāh Shujā on the throne, and he was crowned at Kandahār in 1839. It is unnecessary here to review the disasters which followed the execution of this policy. When the British forces were at last withdrawn, Dost Muhammad was left free to pursue his own ambitions, and for a time Kandahār and Herāt continued to be ruled by Afghān governors independent of Kābul. The Sikh Wars seemed to offer to Dost Muhammad an opportunity for regaining the former possessions of Afghānistān in India, but the defeat of his contingent by Lord Gough at Gujrāt, in 1849, compelled him to abandon all hopes of success on that side.

The outbreak of the Crimean War introduced a new factor into the political problem. The Marquis of Dalhousie had concluded, in 1855, a treaty with Dost Muhammad which amounted to a restoration of friendly relations. At the same

time the territories known as Baluchistān were brought within the Indian protectorate, and a close contact was thus established between Persia and India, from the coast and the Gulf to the mountain peak of Koh-i-Malik-Siāh. Persia was given to understand that no violation of Afghān territory would be allowed, and that the independence of Herāt must be recognized. The position of affairs was then as follows: the ruler of Herāt professed to hold that fortress as a dependency of Persia; the British Government had warned the Shāh against encroachments upon the independence of that place or of Afghānistān; and Dost Muhammad was known to be resolved upon the annexation of Herāt. The Shāh determined to forestall his rival, and in October, 1856, took the city after a gallant resistance. A fresh agreement was now concluded by the Governor-General with the Afghān Amīr in 1856, and pressure was brought to bear upon Persia by the dispatch of an expeditionary force under Sir James Outram to the Persian Gulf and the occupation of Kharak. In 1857 the Shāh ordered the evacuation of Herāt, having bound himself, by the treaty signed at Paris in that year, to renounce all claims of sovereignty over Herāt and other parts of Afghānistān. In the event of differences arising, the Persian Government undertook to refer them for adjustment to the friendly offices of the British. By the terms of this agreement the British Government has, through the Indian authorities, repeatedly interfered in the interests of peace. Not only has it delimitated the frontiers of Baluchistān and Afghānistān with Persia at various periods, beginning with Sir F. Goldsmid's commission in 1872, and ending with Colonel McMahon's mission in 1903, but it has also composed differences arising out of that delimitation or from other causes. Thus in 1891 General MacLean fixed the boundary on the Kal-i-Kalla and erected pillars on the frontier at Hashtadān, while the troublesome question of canals and cultivation in Seistān has been the subject of arbitration on more than one occasion, the latest occurring in 1903–4. Besides these larger questions, India is concerned in the management and extension by sea and land of the telegraph system, in the protection of trade by the Nushki route, and in the control of the traffic in arms and ammunition. At other times joint operations have been undertaken to suppress brigandage on the borders of Baluchistān, and even to pursue parties that interfered with the construction of telegraphs. In these and other directions the Indian Foreign Department is frequently brought into relation with the Persian authorities.

Relations with Afghānistān.

The conduct of British relations with the Amīr of Afghānistān is an important part of the duties of the Foreign Department of the Indian Government. So far as these dealings arise out of the contact of Afghān and British territories, an account of them will be found in the volumes dealing with the History of India and the State of Afghānistān; and it will suffice here to give a brief sketch of the present situation, with special reference to the reciprocal and external relations of the two countries. On the recognition of Abdur Rahmān as Amīr in 1880, an assurance was given to him as to his position in the following terms: 'Your Highness has requested that the views and intentions of the British Government with regard to the position of the ruler at Kābul in relation to foreign powers should be placed on record for Your Highness's information. The Viceroy and Governor-General of India in Council authorizes me to declare to you that, since the British Government admit no right of interference by foreign powers within Afghānistān, and since both Russia and Persia are pledged to abstain from all interference with the affairs of Afghānistān, it is plain that Your Highness can have no political relations with any foreign power except with the British Government. If any foreign power should attempt to interfere in Afghānistān, and if such interference should lead to unprovoked aggression on the dominions of Your Highness, in that event the British Government would be prepared to aid you, to such extent and in such manner as may appear to the British Government necessary, in repelling it; provided that Your Highness follows unreservedly the advice of the British Government in regard to your external relations.' Abdur Rahmān was, in 1883, granted a personal subsidy of twelve lakhs of rupees a year, to which 6 lakhs were added on the conclusion of the Durand Agreement in 1893, with a further addition of half a lakh in 1897 to meet the cost of sending an officer and a small escort to collect the revenue of Eastern Wākhān and attend to the administrative affairs of that tract. Two agreements with the Amīr were signed, on behalf of the Government of India, by Sir Mortimer Durand in November, 1893. The first recited the fact that, by the agreement concluded in 1873 between Russia and Great Britain, the river Oxus was to form the northern boundary of Afghānistān from Lake Victoria, or Sarikol, on the east, to the junction of the Kokcha with the Oxus, and that consequently the Amīr agreed to evacuate districts lying to the north of the Oxus and take possession of others lying to the south of that portion of the river. The second document described the

eastern and southern frontiers of the Amīr's dominions from Wākhān to the Persian border, and provided for a demarcation of the border in detail. It concluded with an expression of the desire of the British Government to see Afghānistān strong and independent, engaging that no objection should be raised to the purchase and importation by Abdur Rahmān of munitions of war, and undertaking, as already stated, 'to increase by the sum of 6 lakhs of rupees a year the sum of 12 lakhs now granted to His Highness.' Abdur Rahmān died in October, 1901, and was succeeded by his son Habībulla, with whom friendly communications were at once exchanged, and a formal treaty was concluded on March 21, 1905, continuing the agreements and arrangements that had existed between the British Government and his father.

Frontier delimitation.

It is sufficient here to give an outline of the steps taken to complete the delimitation of the frontier of Afghānistān. Negotiations with Russia for the purpose of defining the northern frontier had been commenced in 1869, during the reign of Amīr Sher Alī, and a common understanding was reached in 1873. But it was not until 1884 that General Sir Peter Lumsden, the Commissioner appointed by the British Government, reached Bāla Murghāb in order to commence the actual delimitation. After further delay and difficulty, arising out of the non-arrival of the Russian Commissioner and the collision at Panjdeh, the frontier between Zulfikār, on the Hari Rūd, to the meridian of Dukchi—a group of wells north of Andkhui and within 40 miles of the Oxus—was laid down, and a protocol on the subject was signed by the British and Russian Commissioners in September, 1886. In the course of the next few years, the line between Dukchi and the Oxus, which had meanwhile been settled at St. Petersburg in 1887, was demarcated, and various other details were settled; and finally the Pāmir Joint Commission in 1893–5 carried the boundary from Lake Victoria to Povalo Schveikovski on the Taghdumbāsh Pāmir, a little north of latitude 37° N. The entire length of the Afghān-Indian frontier has not yet been delimitated, but in the few tracts where pillars have not been erected a general understanding has been arrived at pending final settlement. On this and many other matters affecting the administration of the two neighbouring countries frequent correspondence takes place between Afghānistān and India. The Governor-General is represented at Kābul by an Indian Muhammadan agent, and the Amīr maintains an envoy at the head-quarters of the Government of India.

Kashgar. Pursuing the line of India's frontiers on the north, and bearing in mind that Kashmīr, including Ladākh and its outlying dependencies, is under the direct supervision of the Resident in Jammu and Kashmīr, we find that a corner of the Russian dominions, and parts of the Chinese empire and Tibet, lie beyond the mountain border of India from the Pāmirs eastwards until the boundaries of Burma march with those of Yünnan in China. An assistant to the Resident in Kashmīr is stationed at Kashgar, in Eastern Turkistān, where for a time (1862–78) an independent Muhammadan dynasty established itself, with whose ruler, the Atalik Ghāzī Yakūb Khān, a commercial treaty was made in 1874. Kashgar is situated at the meeting of routes from the valley of the Oxus, from Samarkand, and from China and India; and since Yakūb Khān's death it has been re-conquered by China. Its commerce and trade, of which India formerly monopolized a large part, have lost much of their value owing to the disturbances which ensued during the rule of Yakūb Khān. Such traffic and intercourse with India as still survive fall under the political superintendence of the Indian Government.

Relations with Tibet. The geographical and historic relations of India with Tibet must always create a community of interests between the two countries. Its capital, Lhāsa, is within 200 miles of the frontiers of Sikkim, and the extension of the Indian railway system to Darjeeling offers some facility for trade and commerce. In times past a close connexion existed between Tibet and the Native States of the Himālayas, and also with Cooch Behār in the plains. The State of Nepāl has, within a comparatively recent period, made wars and concluded treaties direct with the Tibetan Government, while the Government of India has settled the Tibet-Sikkim frontier and secured commercial concessions by agreement with the Chinese Government, under whose suzerainty Tibet is admitted to lie. But although Chinese officials resided at Lhāsa, and the people paid a nominal poll-tax to that empire, the dominant authorities of Tibet long consisted of the chief Buddhist ecclesiastics, at the head of whom was the Dalai Lāma, and local secular chiefs. On one point all these authorities, whether representing the empire of China, the Buddhist church, or the local chiefs, have been agreed, namely in the exclusion of foreign interference and European visitors. The country is known to be rich in gold and other minerals; but the fury of its winds, the height of its numerous passes, and the scantiness and poverty of its population help to maintain this exclusive policy. The

relations of the Indian Government with Tibet consequently involve special difficulties which have rather increased than decreased with time. In 1774 Warren Hastings, on receipt of a letter from the Tāshi Lāma at Shigatse, sent a mission which was well received at that place but was not allowed to visit Lhāsa. In 1783 a second mission was sent which brought back a promise from the Regent, addressed to the Tāshi Lāma, admitting any native traders who might be recommended by the Governor-General to trade at Shigatse, and promising them help in securing transport for their merchandise from the frontiers of Bhutān. In 1792 the Nepālese invaded Tibet, and were only driven out of Shigatse by the aid of the Chinese, who, believing that the Indian authorities had encouraged the Gurkhas, established a post at Phāri and forbade natives of Bengal to enter Tibet. So matters remained until, in 1873, fresh attempts were made to open up trade with the country, and a road was carried from India, through Sikkim, to the frontier at Jelep-La. In a convention concluded at Chefoo with China, in 1876, provision was made for the protection of any mission sent to Tibet. By a convention ratified in 1887 it was agreed that the contemplated mission should be abandoned; but the Chinese Government formally accepted the duty, 'after careful inquiry into the circumstances, to adopt measures to exhort and encourage the people with a view to the promotion and development of trade' with India. In the following year the Tibetans, without provocation, made a hostile advance to Lingtu, a place 12 miles inside the Sikkim frontier, and were expelled with heavy losses. Further negotiations followed, and in 1890 a convention was concluded between Great Britain and China, the latter power acting on behalf of Tibet also. In accordance with its terms regulations for trade were agreed upon by the British and Chinese Governments in 1893, by which a trade mart was to be opened at Yatung, where the right to post a British officer was conceded, and facilities for commerce in all goods, save tea and certain other articles, were to be granted to India. In 1895 delegates from India, China, and Tibet were appointed to demarcate the frontier, but the Tibetans declined to take part in the work and destroyed some of the pillars erected. Remonstrances addressed to the Dalai Lāma against these proceedings were unheeded, and in 1902 an officer was sent to exclude the Tibetans from grounds on the British side of the border which they had occupied. Block-houses erected by them in violation of the frontier were destroyed, and an arrangement was made with China for

a settlement on the spot of the difficulties which had arisen. Colonel Younghusband, who had been appointed British Commissioner, proceeded, in July, 1903, to Khamba Jong, which had been arranged with the Chinese Government, with the consent of the Dalai Lāma, as the place for negotiations. The Tibetans, however, resisted the approach of this peaceful mission and prevented the Chinese delegate from joining Colonel Younghusband's camp. As their attitude became more hostile, and as it was undesirable to retain the mission in so exposed a point as Khamba Jong, it was withdrawn, but entered the Chumbi valley in December, 1903, when a further attempt was made to get into touch with the new Ambān (Chinese Resident) at Lhāsa, who was specially empowered to effect a settlement. This failed owing to the obstructive tactics of the Tibetans, and the mission advanced to Gyāntse in April, 1904, encountering some slight opposition *en route*. At Gyāntse the attitude of the Tibetans was at first friendly, but subsequently the mission was attacked. Reinforcements were sent up, and on their arrival Tibetan delegates put in an appearance. The Ambān was, however, still prevented by the Tibetans from joining the mission, and the delegates had no real power or intention to negotiate, while a large armed force of Tibetans held the *jong*, or fort, dominating Gyāntse and would not withdraw. The fort was therefore captured, and in July the mission advanced towards Lhāsa, as it was clear that only there would it be possible to get into direct touch with the Ambān and the Tibetan Government. It reached Lhāsa, after trifling opposition, in August, 1904, and in the following month a treaty was signed which settled the frontier and other questions. To this settlement China signified her adhesion on April 27, 1906.

With China.

With the Chinese authorities in Yünnan many questions of internal order, commercial intercourse, and mutual assistance must constantly arise, requiring a prompt settlement with the British officials in Burma. Conventions with China in 1894 and 1897, the latter being rendered necessary owing to the violation of the former by the Chinese cession to France of part of the State of Kiang-hung, have enabled the frontier to be traced with more or less detail from a point fixed in latitude 25° 35′ N. and longitude 98° 14′ E. The main result of the surveys undertaken between 1897 and 1900 was to demarcate the boundary as far as 21° 46′ N., with the exception of the part bordering on the Wa States from 23° 28′ to 22° 9′ N., where the hostility of the tribes and differences between the

Commissioners interposed for the time insuperable difficulties. As regards the border north of 25° 35′ N., the information available in 1894 was insufficient to enable a line to be traced on the map appended to the convention, and a settlement was therefore reserved. In 1898, a Chinese official having entered the territory in dispute with an armed force, intimation was made to the Tsungli Yamen that the exercise of Chinese authority on the west of the range of mountains forming the watershed between the N'maikha and the Salween rivers could not be tolerated. In 1904, after examination of the country, a formal communication was made to the Chinese Government to the effect that the watershed of all streams draining into the N'maikha from the east, and to the north of 25° 35′ N., was the natural boundary, and would be treated as the actual political boundary until a joint settlement was reached. In former days the East India Company bore the whole expense of diplomatic intercourse with China, but when its monopoly of trade with that country ceased in 1834, the Imperial Government paid two-thirds of the cost until 1875. Subsequently a fixed sum was paid by India, varying from £15,000 to £12,500 a year. The interests of India in China are not confined to the opium trade. Border questions are frequent, and the extension of the railway system in Burma lends importance to the state of communications and the facilities offered in Yünnan. A British Consul-General is stationed at Yünnan-fu, under the authority of the Imperial Government, and a consul resides at Tengyueh.

With Siam.

Although the French Protectorate over Tongking, established in 1883 and confirmed by the Chinese Government in 1885, has brought French influence to bear on Yünnan, and British engagements have recognized the position of France on the Mekong, the nature of the country on the eastern border of this part of Burma has not yet required the establishment of any special agency for the conduct of relations with the French possessions across the river. With Siam, on the other hand, the British have had long-continued relations. The acquisition of Prince of Wales Island in 1786 brought the Company into close connexion with Khedah and thus with Siam. The Siamese proved bad neighbours, gave no effect to commercial engagements made in 1826, and even occupied Khedah. After the first Burmese War Arakan and Tenasserim were added to the British dominion, and when Lord Dalhousie annexed Pegu it became necessary to settle the frontier and to enter into closer relations with the kingdom of Siam. In

1874, after prolonged discussion, a treaty was concluded for the prevention of heinous crime on the border and the development of peaceful commerce. It was also agreed that judges should be established in the Chiengmai Province for the peaceful adjustment of civil disputes between British and Siamese subjects. This arrangement did not work well, and in lieu of it provision was made, in 1884, for the establishment of a British consular officer at Chiengmai with adequate jurisdiction. By treaties concluded in 1883 and 1885 arrangements were made for granting passports to British subjects and for the extradition of criminals. In 1887 an Order in Council prescribed the registration of British subjects resident in Siam, and this was modified by a further Order, issued in 1889, which regulates the exercise of civil and criminal jurisdiction by consular courts. After the annexation of Upper Burma the Siamese claimed trans-Salween Karenni, and some other States to the east of the Salween, as part of the Province of Chiengmai. Finally a joint Commission, in 1892–3, settled the line of frontier, which is now clearly demarcated along the whole length from the Mekong down to Victoria Point. Great Britain and France have mutually determined to respect the integrity of the central districts of Siam in the Menam valley; and by a declaration signed in London in April, 1904, it was agreed that the influence of Great Britain should be recognized by France in the territory west of the basin of the Menam, including the Malay Peninsula and the adjacent islands. The maintenance of the influence thus recognized in the country that borders upon Burma is necessarily a concern of the Indian Foreign Department.

Pecuniary liabilities of the Indian Government outside India as determined in 1900.

A brief reference may here be made to the Report of the Royal Commission on the Administration of the Expenditure of India presented in 1900 to both Houses of Parliament, since it throws a side-light upon the special interests of India in the field of Imperial diplomacy. It was held that the United Kingdom should bear one-half of the military charges at Aden, and half the cost of the mission and consulates in Persia. It was eventually decided, as regards Persia, that India should contribute a sum of £6,000 per annum towards the cost of the establishments maintained there under the immediate orders of His Majesty's Government, and that all future charges incurred by common consent should be equally divisible between the two exchequers. Towards the expenditure on Aden a lump contribution of £100,000 a year is now made by the

Imperial Government, which also contributes towards the cost of special armaments. The contribution of India towards the China establishments mentioned above (£12,500) was to be open to revision after a term of years. While India pays half the subsidy for telegraphic communication with the Mauritius, and maintains the Basra-Baghdād mail service, Great Britain subsidizes the mail steamers on the Karūn river. In consideration of the stream of Indian pilgrims passing through Jedda to Mecca, a moiety of the cost of the Jedda consulate is borne by India, and small contributions are also made, in the interests of Indian emigrants, to the consular expenses in Réunion and Surinam. The maintenance by India of the consulate at Chiengmai is held to be justified by her direct and substantial interest in questions affecting Siam.

Foreign possessions in India.

Within India itself little difficulty arises in connexion with the possessions of France and Portugal. The former power engaged, by the Treaty of Paris in May, 1814, not to erect any fortifications in the establishments to be restored to her, and to maintain no greater number of troops than might be necessary for the purposes of police. By a second treaty, concluded in March, 1815, and a subsequent convention arrived at between the Governments of Madras and Pondicherry in May, 1818, the supply of salt, opium, and saltpetre to the French establishments in India was regulated. Under present arrangements the British authorities supply the salt required at Pondicherry for consumption at prime cost, the French giving up the right of local manufacture, while at Chandernagore an annual payment is made to the French authorities in lieu of a salt supply. A somewhat similar arrangement was made, in 1884, in regard to opium at the latter place. The limits of French jurisdiction in the neighbourhood of Chandernagore gave rise to some discussion, which was terminated by a convention in March, 1853. There are certain small plots scattered about India—as for instance at Jugdea in Tippera; at Cossimbazar and Berhampore, in Murshidābād District; at Patna and Dacca; at Masulipatam and Calicut; and at Surat—where the French formerly occupied factories or *loges*. While these factories lasted the French had jurisdiction over persons resident within them in respect of transactions originating therein. With the abandonment of the factories the jurisdictionary rights lapsed, and French jurisdiction is now confined within the limits of Chandernagore, Pondicherry, Kārikāl, Mahé, and Yanam. Between these establishments and British India extradition is arranged under the terms of Article IX of the Treaty of March,

1815, whereby a fugitive criminal is at once handed over on the demand of the proper authority.

The Indian possessions of Portugal are now limited to the territories of Goa, the small settlement of Diu off the coast of Junāgarh in Kāthiāwār, and Damān, which lies about 100 miles north of Bombay. The only questions to which these foreign possessions have given rise are of a fiscal character, concerning the administration of the salt and opium revenue, and in regard to extradition. By the Lisbon Treaty of December, 1878, a customs union was established between the Indian possessions of the two Crowns, and a tariff of duties was agreed upon; the exclusive privilege of manufacturing and selling salt was granted, under certain conditions, to the Government of British India; and arrangements were made with regard to opium. At the same time provision was made for extradition. This agreement was terminable after twelve years. On the expiration of that period it lapsed, and since then each country has maintained its fiscal independence, while a new extradition treaty has been discussed but has not yet been concluded. The port of Marmagao, opposite the town of Goa, is connected by rail with the system of railways in the Southern Marāthā country; andas at Pondicherry so also at Goa, a British consular officer is established for the purpose of ready communication and the safeguarding of British interests.

Foreign consular agents in India.

Independently of those political affairs with foreign powers which are dealt with at first hand by the Government of India, there are others in which the Foreign Office in London acts in concert with the Governor-General through the medium of the Secretary of State for India. Various European nations, the United States and some other American Republics, Liberia, Japan, Persia, and Siam are represented in India by consular officers whose head-quarters are established on the coast and whose functions are mainly commercial. Under the rule of the Company such officials were recognized by the Court of Directors according to the phrases and forms used in the following dispatch addressed to the Government of Bombay on August 2, 1843: 'At the request of His Majesty the King of the French, which has been communicated to us through the Queen's Government, we have consented to the recognition of M. —— as Vice-Consul for France at Bombay.' But the transfer of India to the Crown has led to a change of procedure. Only the Imperial Government is now addressed on such matters, and the Government of India can recognize no consular appointment requiring His Majesty's *exequatur* until

an intimation of the appointment is received from the Imperial Government. Where His Majesty's *exequatur* is not needed to an appointment made in India by consular officers of foreign powers under the standing regulations of their service, the Government of India can recognize the person so appointed. It is only necessary to add that Native States cannot receive foreign consular agents, and that the Government does not recognize consuls for places in the interior of British India or in the Native States.

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CHAPTER V

LEGISLATION AND JUSTICE

Law

Indigenous law—Hindu, Muhammadan, and customary.

THE indigenous law of India is personal, and divisible with reference to the two main classes of the population, Hindu and Muhammadan. Both systems claim divine origin through revelation and are inextricably interwoven with religion, and each exists in combination with a law based on custom. The Institutes, which Manu declared to be a direct emanation from the deity, remain to this day the foundation of Hindu jurisprudence, although the works of commentators, and the additions necessitated by time and progress, have led to many changes and the formation of various schools. By this ancient code the whole body of substantive law is dealt with under the heads of debt, deposit, sale without ownership, partnership, resumption of gifts, the non-payment of wages, breach of contract, rescission of sale and purchase, relations between husband and wife and master and servant, the settlement of boundaries, inheritance, assault, defamation, theft, robbery, adultery, and gaming. The interpretation of the sacred writings constituting it was from the first entrusted exclusively to Brāhmans, to whom a position of extraordinary sanctity was assigned; and thus the chief part in the work of Hindu legislation was taken by the Brāhmanical order. It must, however, be borne in mind that the British courts have done a great deal towards making these Hindu texts generally binding in matters of marriage, inheritance, and the like.

In like manner the jurisprudence of Islām is based on the Korān. The Korānic law, supplemented where necessary by the *Sunnat* and *Hadīs*, or Sayings and Doings of the Prophet, as well as by the decisions of his successors and the writings of the Muftis and Maulvis, who formed a distinct profession and arrogated to themselves its exposition, is most fully developed in the departments of family relations and inheritance, in certain branches of the law of contract, and in the doctrine of pious or charitable endowment, called *wakf*.

But, besides the Hindu law of the Shāstras, there has ever been recognized a customary law varying with locality; and, side by side with the Muhammadan law proper, there sprang up in the course of Musalmān conquest a species of common law, derived not from the Korān but from local usage, and maintained by the countenance and support of the ruling power.

Extent to which Hindu and Muhammadan law have been superseded by British supremacy.

Except in the case of the island of Bombay, which was obtained through cession in full sovereignty from Portugal, wherever the English first settled in India they did so with the licence of a Native government, and the natural consequence would have been their submission to Native law. But there was, in the first place, really no *lex loci* to govern the new-comers, for the idea of a territorial, as opposed to a personal law, is of European and modern origin, and the Shāstras and Korān alike know no local limits, but bind individuals united only by a common faith. In the second place, the law of nations clothes Europeans settled in the midst of races differing from them entirely in religion, manners, and habits, with the national character of the parent state, and recognizes their factories and plantations as exclusive possessions. Lastly, many of the provisions of the indigenous law of India were such as no civilized Christian race could enforce. Mutilation and stoning, for instance, are penalties incompatible with Western ideas; and equally so is the principle that the evidence of an infidel could not be received against a Muhammadan, or that there should be a privileged law for the Brāhman alone. Accordingly, the earliest charters assumed that the English had brought their own legal system with them, and that of 1726 introduced the common law and the older Acts of Parliament into the three Presidency towns as regards Europeans, by expressly directing that justice should be administered by the Company in accordance with the laws of England. At first the tendency of the English was to make their law public and territorial, and, on the establishment of the Supreme Court at Calcutta in 1773 and the advent of English lawyers as its judges, they proceeded to apply it to Europeans and Natives alike. The error of this course was, however, rectified by the passing of the Declaratory Act of 1780, by sec. 17 of which Parliament directed that, as against a Hindu, the Hindu law and usage, and as against a Muhammadan the laws and customs of Islām, should be applied. This wise rule, which had already been laid down by Hastings in Bengal, was repeated for the settlements at Madras and Bombay by a

statute of 1797 (37 Geo. 3, c. 142); it was incorporated in the old Regulations of Bengal, Madras, and Bombay; and it was extended by subsequent legislation throughout the Company's territories. In this way the British took the line of least resistance, and to it they have adhered, accepting and carrying on as far as possible what they found, and obtruding only so much of their own law as India from time to time became fitted to receive. Owing to the influence of Western jurisprudence, to the case-law emanating from courts established and moulded on English models, to the advance of enlightened ideas, and to the progress of education, the rules of the Shāstras and the Korān have gradually been altered and relaxed. Moreover, the Acts of Parliament which inculcated their observance are not among those which the legislature in India is forbidden to alter or affect; and, as an inevitable consequence, substantial modifications have been made by direct legislation, such as that contained in the Bengal Satī Regulation, 1829; the Indian Slavery Act, 1843; the Caste Disabilities Removal Act, 1850; the Hindu Widows' Remarriage Act, 1856; and the various Acts and Codes, criminal and civil, which will be referred to hereafter under the head of codification, to say nothing of the tenancy and rent laws passed for the different Provinces.

Statutory character of British Indian law generally.

A certain number of the older English statutes and the English common law are, therefore, to a limited extent still in force in the Presidency towns as applicable to Europeans, while much of the old Hindu and Muhammadan law is everywhere personal to their native fellow subjects; but, apart from these and from the customary law, which is as far as possible recognized by the courts, the law of British India is the creation of statutory enactment made for it either at Westminster or by the authorities in India to whom the necessary law-giving functions have from time to time been delegated.

Legislation in Parliament.

The supreme power of Parliament to legislate for British India can scarcely be questioned; but it has nevertheless been explicitly saved by, for example, sec. 51 of the Charter Act of 1833. The application of an unrepealed statute passed before the grant of the charter of 1726 is a matter of doubt and complexity, which can be decided only as it arises with reference to the language used and the attendant circumstances. In connexion with the later statutes, however, the position is simply this, that no Act of Parliament passed subsequently to 1726 has any application to any part of British India, unless it purports to extend [illegible] in express terms or by necessary implication.

Legislation in India.

At the outset the Company was empowered by its charters to make such new laws as might be found to be necessary or convenient. On the assumption of the Dīwāni of Bengal in 1772 a series of instructions were promulgated as the basis of administration; but, in making these the Company acted, not under the authority of the British Crown, but as agents for the Mughal emperor at Delhi. In the following year, however,

Legislation by the executive of each Presidency till 1834.

the Regulating Act empowered the Governor-General-in-Council to make—subject to registration with the approval of the Supreme Court—rules and regulations for the government of the settlement at Fort William and its subordinate factories. An Act of 1781 next authorized the framing of rules without reference to the Supreme Court, but subject to the approval of the King-in-Council; and in the exercise of this power a fresh set of Regulations was drawn up by Lord Cornwallis in 1793, one of them providing for the formation into a regular code of all the rules from time to time issued for the internal administration of Bengal. In 1797 another Act confirmed 'this wise and salutary provision'; and statutes passed for Madras in 1800, and for Madras and Bombay in 1807, entrusted to the Governors-in-Council of those Presidencies similar quasi-legislative powers. Under this system there grew up the three 'codes' known as the Regulations of Bengal, Madras, and Bombay, and in accordance with these the Company's territories were administered until the year 1834. So far the legislative authority conferred was vested in the executive; and this system of law-giving survives in the Regulations and Ordinances, which, as will be shown hereafter, the Government of India and the Governor-General are still competent to make.

Creation of one regular legislature by Charter Act of 1833.

But by the Charter Act of 1833 the old series of executive orders was closed and a new system was introduced. The legislative functions of the Madras and Bombay Governments were withdrawn, and the whole legislative authority was vested in the Governor-General and his Council, strengthened by the addition of a lawyer who was not to belong to the service of the Company and whose duties were to be confined to legislation. The body so constituted was authorized to legislate for all persons, places, and courts within the Company's territories; and the laws made by it were, subject to disallowance by the Court of Directors, to have the effect of Acts of Parliament, registration in a court of justice being finally dispensed with.

Enlarged by Act of 1853.

The Charter Act of 1853 increased the legislative body to twelve members, four of them to [illegible]minated by the different Local Governments. This Council, [illegible] the chief justice

and one of the puisne judges of the Supreme Court at Calcutta were added, was intended for purely legislative work; but, modelling its procedure on that of Parliament, it evinced an inconvenient tendency to interfere with the executive. The position was, therefore, reconsidered, and the next important stage was marked by the passing of the Indian Councils Act, 1861. By that enactment provision was made for the appointment of Additional Members to form a larger Legislative Council. The nature of the business to be transacted was carefully defined, the extent of the powers delegated was categorically described, and the prerogative rights of the Crown, as well as the authority of Parliament, were effectively safeguarded. Simultaneously the opportunity was taken to restore and remodel the local legislatures at Madras and Bombay, and the Governor-General-in-Council was empowered to extend the Act to other parts of British India. In pursuance of these provisions subordinate Legislative Councils have been authorized for Bengal in 1862, for the United Provinces in 1886, for the Punjab and Burma in 1898, and for Eastern Bengal and Assam in 1905. The Central Provinces is now the only large administration unprovided with a local legislature. Finally, by the Indian Councils Act of 1892 all of these legislative bodies, supreme and subordinate, were still further enlarged; the elective element was introduced tentatively; and provision was made for interpellation and discussion of the budget.

Legislature remodelled, and subordinate legislatures created, by Act of 1861.

Legislatures enlarged, and election and interpellation permitted, by Act of 1892.

Powers of executive to legislate or supersede ordinary law in special cases.

To meet emergencies the Governor-General is vested with a power not unlike that which was, for a short time during the reigns of Henry VIII and Edward VI, placed in the hands of the King-in-Council in England by the Statute of Proclamations of 1539. Under sec. 23 of the Indian Councils Act of 1861, the Governor-General alone may, in case of pressing necessity, promulgate Ordinances, which are invested with the same force and effect as enactments of the legislature, but cannot remain in operation for more than six months. This extraordinary power has been resorted to on only five occasions; once with the object of restraining dramatic performances of a character calculated to excite racial animosity, once in order to deal with the disturbed state of part of the Punjab, and thrice in connexion with matters of fiscal importance. The Indian Statute-book also contains several enactments[1] which arm the executive

[1] See the Bengal State Offences Regulation, 1804; the Madras State Offences Regulation, 1808; the Bengal State Prisoners Regulation, 1818; the Madras State Prisoners Regulation, 1819; Bombay Regulation XXV of 1827; the State Offences Act, 1857; and the State Prisoners Act, 1858.

with authority, in the event of internal commotion or disturbance, to suspend the regular law and supersede the ordinary courts of justice.

Modern regulations.

Another kind of quasi-legislative authority has been bestowed by the Government of India Act, 1870, which empowers the Governor-General in (Executive) Council to make Regulations, having all the cogency of Acts of the legislature, for the peace and good government of any tract to which that enactment may have been applied by the Secretary of State. Many Regulations for such territories as Assam, the Andamans, Aden, Ajmer-Merwāra, British Baluchistān, Coorg, the North-West Frontier Province, and Upper Burma, in which the hand of the executive requires to be strengthened, have been made in this way, the object being, as a rule, to bar the operation of the general law and permit the application of certain enactments only, with such modifications as may be deemed necessary in the interests of successful administration. These less advanced tracts, and others specially 'scheduled,' may also be dealt with under an Act of the Indian legislature, entitled the Scheduled Districts Act, 1874, which empowers the Government to declare, in case of doubt, the law in force in them, and further to extend to them, with or without modification, any enactment in force elsewhere in British India.

Legislative Council of the Governor-General.

The Executive Council of the Governor-General at present (1906) consists—besides the Governor-General himself and the Commander-in-Chief, who is usually appointed by the Secretary of State to be an Extraordinary Member—of six Ordinary Members, of whom one must be an English or Irish barrister or Scottish advocate of not less than five years' standing. For the purposes of legislation, it is provided by the Indian Councils Acts of 1861 and 1892 that the Governor-General shall summon as an Additional Member the Lieutenant-Governor or Chief Commissioner of the Province in which the Council is assembled, and shall also nominate such other persons, not less than ten nor more than sixteen, as he may think fit. Of these Additional Members, who are appointed for two years at a time, one-half at least must be non-officials[1]; and, in order to give the Council an elective as well as a representative character, statutory rules now require the nominations to five seats to be made on the recommendation of the Calcutta Chamber of Commerce and the non-official members of the local Legislative

Additional Members. Representation of non-officials and natives.

[1] Under the existing statutory rules not more than six of the nominated Additional Members may be officials.

Councils at Madras, Bombay, Calcutta, and Allahābād. The remaining seats may be filled in such manner as appears to the Governor-General most suitable, regard being had to the business in hand and the different classes of the community to be represented. With the latter object it is usual to nominate representatives of as many of the other Provinces as possible; and the care taken to secure the due representation of the native population may be instanced by the fact that eight of the twenty-four persons who, in 1904, formed the Governor-General's Legislative Council were natives of India. The constitution of this legislative body is, by reason of the permanent official element furnished by the Ordinary Members, such as to leave the Government in a majority; but there is ample room for the expression of the views of the non-official public, and standing orders provide for eliciting extraneous opinions by the timely publication of all measures of any importance. In practice, moreover, every consideration is shown for public feeling. Bills are frequently altered and added to in consonance with suggestions received from outside; and legislation, as in the case of the Indian Tea Cess Act of 1903, is occasionally undertaken at the instance of an interested section of the community.

Powers and limitations of the Legislative Council.

Under the statute of 1861, the only business capable of being transacted at a meeting of the Legislative Council was the consideration and passing of bills; but the amending Act of 1892 permits the asking of questions and the discussion of the annual budget, subject to the proviso that no member shall use either privilege to propose any resolution or to divide the Council. No law has validity until the Governor-General has signified his assent, and the prerogative rights of the Crown are guarded by the provision that the sovereign may disallow any measure. No Act giving power to a court, other than a chartered High Court, to sentence European British subjects to death can be passed without the previous sanction of the Secretary of State[1]; while the consent of the Governor-General must be obtained before any project is brought forward which affects religion, the public revenues, the army, or foreign relations. The legislative powers conferred do not extend to affecting the provisions of any Act of Parliament passed after the year 1860; nor do they permit the enactment of any law touching the authority of Parliament, or 'any part of the unwritten laws or constitution of the United Kingdom whereon may depend in any degree the allegiance of any person to the Crown or the

[1] See sec. 46 of the Government of India Act, 1833.

sovereignty or dominion of the Crown[1].' And, in particular, the Council has no authority to repeal or alter the Army Act, or any of the Government of India Acts of 1833, 1853, 1854, 1858, and 1859, or any Act enabling the Secretary of State for India to raise money in the United Kingdom. But, within the limits and under the conditions above indicated, the Council possesses plenary power to legislate for all persons, courts, places, and things within British India. And, further, it has extra-territorial power in that it may make laws for native Indian subjects of the King-Emperor anywhere; for European British subjects and servants of the Government of India in the Native States of India; and for native officers and soldiers in the army and persons belonging to the Royal Indian Marine wherever they may be serving[2].

Rules of business, practice, and procedure.

The Act of 1861 provides for the making and amendment of rules of business, and the practice under them may be thus summarized. The Governor-General presides[3] at the meetings, which are held at his official residence, and are, as far as the exigencies of space allow, open to the public. On every motion before the Council each member in turn is entitled to speak once after the mover, and may, with the permission of the president, speak a second time by way of explanation. The mover has the right of reply, but the president usually brings an important discussion to a close by speaking last. The members, of whom seven form a quorum, remain seated round the Council board throughout the proceedings; and all speeches are addressed to the president, through whom likewise all questions must be asked. Every motion is decided by a majority of votes[4], and, once it is put, no further discussion is allowed. The president is vested with full discretion to decide all points of order, to adjourn any meeting or business, to direct the withdrawal of strangers, and to suspend any of the rules. The budget discussion permitted by the Act of 1892 is similarly dealt with; and the privilege of interpellation is restricted and safeguarded. Questions must be so framed as

[1] For a judicial interpretation of these words, see the case of *Ameer Khan* (1870), 6 B. L. R., at pp. 450–2.

[2] See the following Acts of Parliament: the Indian Councils Act, 1869, sec. 1; the Government of India Act, 1865, sec. 1; the Indian Councils Act, 1861, sec. 22; the Government of India Act, 1833, sec. 73; and the Indian Marine Service Act, 1884, sec. 2.

[3] If the Governor-General is unavoidably absent the senior Ordinary Member of Council presides.

[4] The president may vote on every division and has a casting vote when the Council is evenly divided.

to be merely requests for information, and anything defamatory or in an argumentative or hypothetical form is out of order. Notice of every question must be given; the question is read in Council by the member who framed it, or by some other member for him; and no disputation is permitted in respect of the answer, which is given by the Ordinary Member in charge of the particular department of the administration concerned or by some other member designated, *pro hac vice*, by the president.

Stages of legislation.

The following are the stages which must ordinarily be passed through before a contentious measure becomes law:—

(1) Motion, after due notice, for leave to introduce a bill, followed by its formal introduction and publication for criticism. This corresponds with the practice in Parliament up to the first reading.

(2) Reference of the bill, with any opinions received, to a select committee. This corresponds with the second reading in Parliament and the motion that a bill be committed; and it marks the most important stage, when the principle of the measure ought to be discussed and approved or disapproved. In select committee the details are scrutinized, suggestions are considered, and the draft is amended, under the guidance of the Law Member.

(3) Consideration in Council of the select committee's report, and of any further amendments that may be brought forward. This corresponds with the third reading in Parliament.

(4) Motion, as in Parliament, that the bill, as amended, be passed.

(5) Signature of the president to the bill as passed, and of the Governor-General by way of assent, followed by its final publication as an Act.

In the case of a non-contentious project some of these steps may be omitted. There is often no need for waiting for criticism of such a measure or referring it to a select committee, and it may be accepted without amendment. Again, it is sometimes necessary to pass a bill without delay, and the rules have on occasion been suspended so completely as to allow an Act to pass through the Council at a single sitting. The standing orders render it impossible for the proceedings ever to assume the character of a Parliamentary debate, and the machinery provided is such as to make legislation in the direction desired by the Government comparatively easy. It is rare for a bill to become law without being taken up as a Govern-

ment measure, bills introduced by non-official members being, as is now increasingly the case at Westminster, intended mainly to stimulate the Government to action. For private-bill legislation as such there is no provision, most of the matters which are dealt with in that way in the United Kingdom being made the subject of executive action in India.

Local Legislative Councils.

The subordinate Legislative Councils are constituted on the same lines generally as the superior legislature of the Governor-General. In Madras and Bombay the Governor is assisted by an Executive Council of two Ordinary Members, and these three form the nucleus of the larger Legislative Council; but in each of the other Provinces the Lieutenant-Governor stands alone at the head of the local administration. The Acts of 1861 and 1892 provide that the Governor or Lieutenant-Governor, as the case may be, shall nominate as members, for two years at a time, the Advocate-General of the Province or other officer acting in that capacity, and—subject, save in Madras and Bombay, to the sanction of the Governor-General—such other persons, not less than eight nor more than twenty[1], as he may think expedient, at least one-half being non-officials. In Madras, Bombay, Bengal, and the United Provinces some of these members are appointed on the recommendation of groups of municipalities and District boards, Universities, Chambers of Commerce, and the like, and the elective principle is thus to some extent recognized. The Governor-General is empowered to frame rules as to the making of these nominations, while the Governor or Lieutenant-Governor is authorized to regulate the asking of questions and the discussion of the provincial budget, subject to the same conditions as in the case of the Governor-General's Council[2]. When a bill has been passed it does not become law until it has been published with the assent of both the Governor or Lieutenant-Governor and the Governor-General, and in the last resort it is liable to veto by the Crown. Finally, provision is made for the framing of rules of business, and in each instance standing orders, similar to those laid down in the case of the Governor-General's Council, have been prescribed. In some cases parliamentary procedure is copied, and provision

[1] These are the maximum and minimum numbers fixed by the statute for Madras and Bombay. As regards the other Provinces, the statute fixes a maximum of twenty for Bengal and fifteen for the United Provinces, but otherwise leaves the numbers to be determined by the Governor-General.

[2] The right to discuss the provincial budget and to put questions on matters outside the business on hand has not yet been entrusted to the recently constituted Councils of the Punjab and Burma.

is made for the 'reading' of bills a first, a second, and a third time. The powers of these local legislatures are strictly territorial, and they are debarred from interfering in any way with the provisions of an Act of Parliament. Nor may they, without the previous sanction of the Governor-General, introduce or pass an Act affecting any law or any regulation made by another legislative authority in India, or interfering with religion, the customs duties, imperial taxation, the currency, the transmission of postal or telegraphic messages, the penal code, patents, copyright, the army, or foreign relations.

Derivative legislation.

The modern and convenient practice of empowering public authorities and local bodies to make supplementary rules, orders, or by-laws, to carry out in detail the purposes and objects of a particular enactment, has been largely adopted in India. Apparently the first Act conferring such delegated authority was No. XI of 1850; but nowadays scarcely a measure is passed into law which does not provide an ancillary rule-making power, furnishing such safeguards in the form of preliminary publication for criticism, previous sanction, and so forth, as may be thought expedient.

British-Indian Statute-book.

The *lex scripta* of British India, or, in other words, the British Indian Statute-book, may, then, be said to consist of: first, Acts of Parliament; secondly, direct legislation in India; and, thirdly, derivative legislation, consisting of statutory rules, orders, and by-laws, supplementing particular enactments. As to Acts of Parliament nothing need be added save this, that the 'Statutes relating to India' have been collected, a new edition having recently been published.

Acts of Parliament.

The results of direct legislation in India may be resolved under five different heads. First, there is so much as is still unrepealed of the early Regulations of Bengal, Madras, and Bombay, which were made prior to 1834 under the quasi-legislative authority then entrusted to the executive. These are to be found in their appropriate places in the various Provincial 'Codes,' or collections of enactments of local application, which are issued from time to time for the different Provinces.

Regulations of Bengal, Madras, and Bombay.

Next, there are the Acts of the Governor-General in Council, which may be divided into general Acts, i.e. Acts of more or less general application, and local Acts. All the laws required for the whole, or the greater part, of British India are made by the Governor-General's Legislative Council, and these are published separately, a new edition of them having been brought

General Acts of Governor-General's Council.

out in 1898–9[1]. Their range is very extensive; and some idea of the variety of matter dealt with may be gathered from the statement that, in addition to the important enactments which have been, or will be, separately referred to, the list of them contains Acts dealing with the police, prisoners, reformatory schools, vagrancy, leprosy, epidemic disease, female infanticide, divorce, marriage, married women's property, the age of majority, usury, charitable endowments, the naturalization of aliens, the registration of property and of domestic occurrences, copyright, coinage and paper currency, emigration, pilgrim traffic, merchant shipping, ports, sea customs and tariffs, cotton duties, merchandise marks, stamps, court fees, opium, salt, excise, income-tax, mines, fisheries, forests, treasure-trove, factories, banks, electrical enterprise, telegraphs, the post office, carriers, railroads, tramways, land acquisition, the recovery of the public revenue, the prevention of cruelty to animals, the preservation of elephants and wild birds, the provision of courts of justice, arbitration, legal practitioners, municipal administration, arms, explosives, military works, cantonments, the native army, volunteers, and the reserve forces. Acts of local application are passed by the Governor-General's Legislative Council in cases in which there are no local legislatures to undertake the legislation desired, or where that contemplated is of a kind with which a local legislature cannot, with its limited powers, deal effectively, or which it is for any other reason desirable that the Supreme Legislature should undertake. Important examples of these are the Dekkhan Agriculturists' Relief Act, 1879; the Madras Civil Courts Act, 1885; the Bengal Tenancy Act, 1885; the Allahābād University Act, 1887; the Central Provinces Municipal Act, 1889; the Lower Burma Courts Act, 1900; the Punjab Alienation of Land Act, 1900.

Local Acts of Governor-General's Council.

Under the third head fall Regulations which, though issued by the executive in pursuance of the statute of 1870, take the form, and have all the effect, of legislative enactments. Temporary Ordinances promulgated by the Governor-General under sec. 23 of the Indian Councils Act, 1861, constitute the fourth, while Acts of the Legislative Councils of Madras, Bombay, and Bengal, the United Provinces, the Punjab, and Burma, form the fifth and last class of Indian legislation proper. The latter are known and numbered as Madras, Bombay, Bengal, United Provinces, Punjab, and Burma Acts, respectively.

Regulations and Temporary Ordinances.

Acts of Local Councils.

[1] A supplementary volume containing the Acts up to the end of 1903 was issued in 1904.

Among the most important of them may be mentioned the Madras Local Boards Act, 1884; the Bombay Land Revenue Code, 1879; the Calcutta Municipal Act, 1900; the Oudh Settled Estates Act, 1900; the Punjab Descent of Jāgīrs Act, 1900; and the Burma Forest Act, 1902.

Statutory rules.

As regards derivative legislation, Local Governments have collected and published such statutory rules and orders as are of local application; but no collection of those that are of general application has as yet been made. Lists of them have, however, been prepared, and they are referred to in the various local or Provincial Codes, as well as in the annotated editions of Acts published by the Government of India. Perhaps the best example of the extent to which this delegation of legislative authority can be carried is furnished by the Cantonment Code of 1899, which was issued in exercise of the extensive rule-making power conferred by sec. 26 of the Cantonments Act, 1889, and contains an exhaustive set of nearly 300 rules and by-laws dealing with the details of cantonment administration.

Orders in Council.

Orders by the King-in-Council in pursuance of Acts of Parliament, such as the Zanzibar Order in Council, 1897, which gives, *inter alia*, an appeal from the consular courts of Zanzibar to the Bombay High Court, are another species of derivative legislation; but the number of these which relate to India is small.

Codification and revision.

The Charter Act of 1833 provided for the appointment of a body of experts, to be called the Indian Law Commission, who were to report upon the courts, the procedure, and the law of British India. On this Macaulay, the first Law Member of the Governor-General's Council, was the moving spirit, and with it the work of codification began. It drafted a Penal Code, which was, however, not passed till 1860, for activity declined after Macaulay's return to England, and the draft was strenuously criticized by many of the judges in India. A second Commission, which sat in England and was nominated under an Act of Parliament in 1853, secured the enactment, with some revision, of its predecessor's Penal Code, as also of two Codes of Civil and Criminal Procedure. Yet a third Commission was convened in 1861, and by it several measures were drafted; but the members resigned in 1870, and since then the work of preparing, as well as of carrying through, codifying bills has been done almost entirely in India under the guidance of the Law Members of Council. India has been the most successful field of English codification, every important branch of the English law in force in the

country, except that of torts, having been incorporated in the form, and reduced to the dimensions, of codes. By far the most important, as it is the best, of these is the Indian Penal Code, which embodies the whole of the substantive criminal law. The bulk of it was drafted by Macaulay; and the most telling proof of its excellence is furnished by the fact that, although it has now been in force for over forty years, it has required little amendment or amplification. Its provisions are based upon the criminal law of England, but the latter has been adapted to suit the circumstances of India. Thus, owing to the unwillingness of the native to protect himself by using force, the right of self-defence is expressed in wider terms than would be employed in England. Again, offences such as dacoity or gang-robbery, judicial corruption, police torture, kidnapping, and the offering of insults or injury to religion or to sacred places, are treated with greater fullness and care than might be necessary in a criminal code for England. Adultery is, in consonance with Eastern ideas, made a subject of criminal proceedings, while the necessity under which many an English judge has laboured of passing a capital sentence only to recommend its commutation to the Home Secretary, has been obviated by making murder punishable with transportation for life as an alternative to death. For the rest, the rules of procedure have been codified in the Codes of Civil and Criminal Procedure[1]; those of succession to the property of persons other than Hindus, Muhammadans, and Buddhists in the Indian Succession Act, 1865; the law of evidence in the Indian Evidence Act, 1872; the principles of contract in the Indian Contract Act, 1872; the matter of injunctions, performance, and equitable relief in the Specific Relief Act, 1877; the limitation of actions in the Indian Limitation Act, 1877; the law governing promissory notes, bills of exchange, and cheques in the Negotiable Instruments Act, 1881; the subject of trusts in the Indian Trusts Act, 1882; the transfer of property in the Transfer of Property Act, 1882; the accrual of easements in the Indian Easements Act, 1882; company law in the Indian Companies Act, 1882; patents in the Inventions and Designs Act, 1888; military and cantonment law in the Indian Articles of War and the Cantonments Act, 1889; and guardianship in the Guardians and Wards Act, 1890.

In India judges and magistrates are most frequently not professional lawyers, and to them codification must always be welcome. But, apart from this consideration, the work accom-

[1] The Codes now in force are those of 1882 and 1898 respectively.

plished has, on the whole, benefited the country. The Penal Code is universally regarded as an unmixed gain[1]; and the same may be said of the two Procedure Codes. The remaining codifying Acts have been subjected to much adverse criticism and condemned as being, in so far as they are not superfluous, calculated to make the law rigid and inelastic; but they have certainly rendered it more accessible and tended to improve its substance. The important branch of the general law relating to torts still remains to be codified, and it has been suggested that the leading principles of Hindu and of Muhammadan law should be similarly dealt with; but there seems no likelihood at present of the codification of the law on any of these subjects. Of recent years considerable progress has been made in the direction of statute-law revision, and the Indian Statute-book has been materially improved in form and simplified and reduced in matter by the passing of such Acts as the Repealing and Amending Act, 1891, the General Clauses Act, 1897, and the Indian Short Titles Act, 1897. Much has also been done in the useful sphere of consolidation, as distinguished from the more ambitious process of codification. For example, the Code of Criminal Procedure, 1898, repealed and replaced no fewer than eighteen separate enactments, and a revised Code of Civil Procedure, to take the place of a like number of enactments passed since 1881, is now (1906) before the Governor-General's Legislative Council. Law-making is in India a comparatively simple process, for Government measures are, as a rule, passed without serious difficulty. The consequence is that amending legislation is rather freely resorted to, the legislature being at once moved to cure any defect or to remove any doubt that may have been discovered in an Act, however recently it may have become law. In the United Kingdom, an amending bill for the most part merely refers to the Act to be amended and proceeds to lay down the new rule to be enacted. In India the more exact method of textual amendment is adopted: that is to say, the required amendments are precisely drafted for actual incorporation in the original or principal Act. This practice, although it facilitates consolidation and has many obvious advantages, somewhat disguises the

[1] 'I do not believe,' said Sir J. Stephen, one of the most distinguished of the Law Members of Council who have held office in India, 'that any English lawyer or judge has anything like so accurate and comprehensive and distinct a knowledge of the criminal law of England as average Indian civilians have of the Penal Code.'—*History of the Criminal Law*, vol. iii, p. 322.

fact that the different parts of what is apparently a homogeneous whole date from different periods, and there is always the risk of oversight, which, however, is minimized by the frequent publication of fresh editions of Acts as amended up to date.

Military law.

European officers and soldiers in India remain subject to English military law, i.e., in the main, to the Army Act (44 & 45 Vict., cap. 58). The native troops, on the other hand, are governed by the Indian Articles of War, which are to be found in Act V of 1869, an enactment passed by the Governor-General's Legislative Council under the authority conferred by Parliament through sec. 73 of the Government of India Act, 1833. Similarly the Governor-General-in-Council has been authorized by Act of Parliament—sec. 2 of the Indian Marine Service Act, 1884—to make laws for all persons employed or serving in, or belonging to, the Royal Indian Marine; and the Indian Marine Act, 1887, has accordingly been passed by the legislature in India.

Legislation in Native States.

It has been stated that the supreme legislature in India has certain extra-territorial powers in that it can bind by its laws all Native Indian subjects of the King-Emperor wherever they may be, and all British subjects and servants of the Government of India anywhere within the Native States of India. But the Governor-General-in-Council has, in his executive capacity and as representing the British Crown, still wider powers; for he can acquire and exercise within the territories of Indian Native chiefs, and of adjoining Asiatic States, powers of legislation and jurisdiction obtained by capitulation, agreement, grant, usage, sufferance, or other lawful means, extending to persons who are not British subjects, and similar to those exercised by the Crown in foreign countries in pursuance of the Foreign Jurisdiction Acts and the Orders in Council thereunder. The existence of such powers and jurisdiction is declared under the Indian (Foreign Jurisdiction) Order in Council, 1902.

In the Native States generally the law that runs is that locally imposed by the ruler, guided by the Government of India acting through its political officers. But in numerous circumscribed areas — particularly cantonments, residency-bazars, and railway-lands—legislative functions and jurisdiction have from time to time been obtained by cession or otherwise, and for such places the Governor-General in (Executive) Council makes territorial laws, applying Acts of the British Indian legislature or framing distinct enactments, and establishing courts for the administration of justice. For example,

in the Civil and Military Station of Bangalore, situated within Mysore, the Indian Penal Code and the Code of Criminal Procedure have been applied, and under the latter regular courts have been created; while, for the better conduct of its municipal affairs, there has been framed a separate and self-contained law, entitled the Bangalore Municipal Law, 1897. These laws, which obviously form no part of the British Indian Statute-book, may be found in the volumes published by the Government of India under the style of *British Enactments in force in Native States.* Apart, however, from areas thus exceptionally situated, and save under such special circumstances as prevail during the minority or incapacity of a ruling chief, the policy of the Government of India is not to interfere with the indigenous law, or oust the jurisdiction of the courts, of a Native State in cases affecting its subjects alone. Within limits fixed by the supervision of the British Government, the native law varies from that of a principality in which the word of the ruler is still despotic, to that of a State like Mysore, which has established a legislature in close imitation of a British Indian Legislative Council and has adopted the Indian Penal Code.

Position of European foreigners.

As regards European foreigners in Native territory, the exercise of jurisdiction is assumed by the British Government; for an Indian native chief is not permitted to have any diplomatic or official intercourse with any foreign power, and it is universally recognized that, for international purposes, his territory must be regarded as a part of the British empire.

Courts

Native courts prior to British occupation.

By Hindu law the king is recognized as the fountain of justice, and the Shāstras require him to maintain permanent courts and to preside in them himself. But no judicial system worthy of the name can be said to have been established, for the whole judicial authority, except such as might be exercised by the king in person, was left vaguely in the hands of Brāhmans. By them the law was expounded, and effect was given to it by the executive, the place of regular courts being taken in part by commissions appointed by the ruler in a summary manner and usually from motives of Court favour, and in part by bodies of arbitrators or *panchāyats*, acting sometimes under the authority of the state and sometimes as arbitrators by consent of parties. The original theory of Islām was that the law is independent of the state; and justice was administered according to the Korān by Kāzīs, sitting in regular courts with Muftis and Maulvis to assist them, and acting on application

under fixed rules of procedure. By this agency matters relating to marriage, adoption, inheritance, and the rights of private property generally, as well as all but the most serious offences and such as threatened the public safety, were dealt with. But the ruler was not altogether excluded, even under Muhammadan usage, from control over the administration of justice, while the customary law of the countries overrun by Musalmān conquest was interpreted according to the will of the conqueror and asserted in an arbitrary manner by his officers. Throughout, indeed, the real power remained in the hands of the executive, who did not hesitate to intervene when and to whatever extent they thought fit. Thus, under the arrangements with which the British were confronted in Bengal, the law was administered at head-quarters by the Nawāb Nāzim himself in capital cases, by his deputy, the Naib Nāzim, in other cases of major importance, and by *faujdārs*, *muhtasils*, and *kotwāls* in cases of a less serious character; while in the interior, or what is known as the Mofussil, *zamindārs* were allowed to exercise local jurisdiction, reporting their decisions to the Nawāb in capital cases only, and being otherwise practically uncontrolled.

Company's early courts.

But, just as the early charters of the East India Company conferred a vague authority to make laws, so did they give the Company a general power to administer justice. In that which Charles II granted in 1683 it was directed that courts of judicature, each to consist of a lawyer and two merchants, should be established at such places as the Company might appoint; and this direction was repeated in the charter of James II in 1686 and in that of William III in 1698. In 1726, however, the necessity for a more regularly constituted judicial authority led the Court of Directors to petition the king to establish Mayor's Courts; and three such courts, composed in each instance of the mayor and nine aldermen, were created at Fort William (Calcutta), Madras, and Bombay, for the trial of actions between Europeans within those towns and the dependent factories. From them an appeal was allowed to the Presidency Governments; and, in cases involving sums exceeding Rs. 4,000, a further appeal lay to the King in Council. In 1753 these courts were re-established under revised letters patent, and Courts of Requests for the determination of suits of value not exceeding Rs. 20 were simultaneously introduced, both classes of tribunal being declared subject to the control of the Court of Directors. As regards the Mofussil, the powers and duties of government in Bengal had been delegated by the Mughal emperor to the Nawāb

Nāzim at Murshidābād; but the victories of the English gradually dislodged the authority of the latter, and in the year 1765 the practical transfer of sovereign rights was secured by Clive through the grant of the Dīwāni. By this grant the Nizāmat or Faujdāri, that is to say, the administration of criminal justice, was left with the Nawāb, and in consequence Muhammadan law was retained and administered, as before, in Muhammadan courts by Muhammadan officers. The collection of the revenue and the administration of civil justice, on the other hand, passed with the Dīwāni; but, while responsibility in these departments was thus accepted by the Company, they were still conducted through native agency. These arrangements failed, and confusion resulted until, in 1771, the Directors resolved to undertake the entire management of the revenues, together with the administration of civil, as well as criminal, justice.

Adālat and *Sadr* Courts.

At this juncture Hastings was transferred from Madras to Bengal, where, on his arrival early in 1772, he proceeded to reorganize the affairs of the Company in general and the judicial system in particular. Mofussil *dīwāni adālats*, or civil courts of first instance, were located in the Districts, and these were presided over by European Zila judges in the service of the Company, with the assistance of Hindu and Muhammadan law officers; while, in order to relieve them of the trial of petty suits, Registers and native commissioners, known as Sadr Amīns and Munsifs, were appointed. For the immediate supervision of these, provincial civil courts of appeal, each composed of four European judges, were provided, and over all was placed a *Sadr Dīwāni Adālat*, or chief civil court of appeal, which was composed of the Governor and Council, assisted by native officers. The impossibility of allowing the crude penal law of the Musalmān system to be followed was at the same time recognized, and here also radical alterations were made. Provincial courts of criminal judicature, or Mofussil *nizāmat adālats*, were created, and, while Muhammadan officers continued to sit in them, their proceedings were supervised by the Company's servants. Courts of circuit, presided over by the judges of the provincial civil appellate courts above referred to, were constituted as courts of criminal appeal and reference over the inferior courts and magistracy, and a *Sadr Nizāmat Adālat* was established, as a chief court of criminal appeal, alongside the *Sadr Dīwāni Adālat*.

Supreme Courts.

The affairs of the country had by this time been brought before the House of Commons, and, on the report of a com-

mittee condemning the Mayor's Courts, the Crown was moved to issue another charter of justice for Bengal. The result was the enactment by Parliament of the Regulating Act of 1773, under which the King in Council established a Supreme Court at Fort William, consisting of a chief justice and puisne judges who were professional lawyers. This tribunal superseded the Mayor's Court, but left the Court of Requests untouched; and its charter gave it full power and authority, subject to a right of appeal to the Privy Council in cases exceeding Rs. 4,000 in value, to exercise all manner of jurisdiction throughout Bengal, Bihār, and Orissa. But the Act and the charter were alike silent as to the relations of the new court and the executive, and both altogether ignored the *Adālats* which had been created under the scheme introduced by Hastings. In the Supreme Court the civil and criminal law administered was English, as also was the procedure followed. In the *Sadr Adālats* and other courts of the Company, the judges knew nothing of English law, and were required by executive order to proceed according to equity, justice, and good conscience, unless Hindu or Muhammadan law was in point or some Regulation expressly applied. These two judicial systems were, therefore, antagonistic: and the omission of the statute to harmonize them led to difficulties and disputes, which were only increased by the abortive attempt of Hastings to appoint Impey, the chief justice of the Supreme Court, to the bench of the *Sadr Dīwāni Adālat*, and had in 1781 to be removed by the intervention of Parliament and the passing of the Declaratory Act. By that enactment the Governor-General and his Councillors were exempted from the jurisdiction of the Supreme Court; and not only was the independent existence of the Company's courts recognized, but the Supreme Court was debarred from exercising any jurisdiction in matters concerning the revenue or the Regulations of the Government. Thus the powers of the Supreme Court were limited and distinguished from those of the *Sadr* and other courts of the Company. Sixteen years later an Act of 1797 extended its jurisdiction, as thus curtailed and defined, to the province of Benares and all places for the time being included in Bengal. In Madras and Bombay there was the same sequence of events, and the judicial system was laid down on similar lines; but there the Mayor's Courts were first superseded by Recorder's Courts, which were Mayor's Courts strengthened by the addition to each of a legal president, and these were not replaced by Supreme Courts till the years 1801 and 1823,

respectively. The Southern Presidency appears, moreover, to have been from the first distinguished by the provision made for the disposal of petty cases through the agency of village headmen and *panchāyats*.

Superior courts under present system.

The present system may be said to have been inaugurated by the passing of the Indian High Courts Act, 1861. In 1852 it had been urged upon the Parliamentary Committee for East Indian affairs that it was desirable that the Supreme and *Sadr* Courts in each Presidency should be consolidated, so as to unite the legal training of the English lawyers who sat in the one with the intimate knowledge of native customs, habits, and laws possessed by the civil servants who presided over the other. The necessary Act of Parliament was passed nine years later, and by it the Crown was empowered to establish High Courts of Judicature for Bengal, Madras, and Bombay, and eventually for the Province of Agra; and it was enacted that, upon the establishment of these, both the Supreme and the *Sadr* Courts should be abolished. The judges were to be appointed by the Crown, and to hold office during the pleasure of the sovereign; and, while at least one-third of their number were, in each case, to be barristers or members of the Faculty of Advocates of Scotland, one-third were to be filled from the judicial branch of the civil service, the remaining places being available for the appointment of native lawyers. The jurisdiction and powers of each court were to be fixed by its letters patent; and it was to be charged with the superintendence of all subordinate courts and with the framing of rules, subject to the sanction of the Governor-General-in-Council, for the conduct of business. In pursuance of these provisions charters were issued in 1862, and reissued in 1865, to constitute the High Courts of Bengal, Madras, and Bombay, and in 1866 a similar charter created a High Court at Allahābād. In the case of Bengal[1] the High Court is vested with ordinary original jurisdiction in respect of suits of every description (except small causes) within the Presidency town, and an appeal lies from a judge on the original, to a bench on the appellate, side. Its extraordinary original jurisdiction enables it to remove and try any suit on the file of a subordinate court, either with the consent of parties or to further the ends of justice. It is also constituted a court of appeal from all the lower civil courts; and it has, as regards the persons and estates of infants, idiots, and lunatics, the powers which were formerly vested in the

Chartered High Courts.

[1] Assam was originally part of Bengal, and it remains within the jurisdiction of the High Court of Fort William at Calcutta.

Supreme Court. Further, it has jurisdiction as a court for the relief of insolvents; all the admiralty, ecclesiastical, testamentary, and intestate jurisdiction of the Supreme Court; and jurisdiction in matters matrimonial between Christian subjects of His Majesty. Finally, its ordinary original criminal jurisdiction is in respect of all persons within and without Bengal and not within the limits of the jurisdiction of any other court; it is vested with extraordinary original criminal jurisdiction over all persons residing in places formerly within the reach of the *Sadr* Court; and it is a supreme court of appeal, reference, and revision. The letters patent of the High Courts of Madras and Bombay are the same in all important respects as the Bengal charter; and the High Court at Allahābād is similarly constituted, save that, there being no Presidency town, provision is not made for the exercise of ordinary original jurisdiction except as regards criminal proceedings against European British subjects. Trial by jury is the rule in original criminal cases before the High Courts, but juries are never employed in civil suits in India.

Chief Courts and Judicial Commissioners.

The establishment of these tribunals was followed by the constitution in 1866 of a Chief Court for the Punjab, framed on the same model but deriving its authority from the Indian legislature, and composed of a chief judge and judges appointed by the Governor-General-in-Council; and in 1900 a similar court was established at Rangoon for Lower Burma. As in the case of the High Court at Allahābād, the Chief Court at Lahore does not exercise ordinary original jurisdiction save in respect of accused European British subjects; but the Burma Chief Court is constituted the principal civil and criminal court of original jurisdiction for Rangoon, which stands very much on the footing of a Presidency town. In each of the other Provinces, the place of a High Court or Chief Court is taken by one or more Judicial Commissioners[1], who are appointed by the Government of India and exercise authority by virtue of various Indian enactments.

Inferior criminal courts under present system. Sessions courts.

The Code of Criminal Procedure provides for the constitution of inferior criminal courts, styled courts of session and courts of magistrates. Every Province—outside a Presidency town—is divided into sessions divisions, consisting of one or more Districts. For every sessions division the Local Government is bound to establish a court of session and to appoint a Sessions Judge, and provision is made for the further appoint-

[1] In Sind the Judicial Commissioner is designated Judge of the *Sadr* Court.

ment, if need be, of Additional and Assistant Sessions Judges. Subject to the territorial limits of their respective jurisdictions, these stationary sessions courts, which take the place of the assizes held by a Judge of the High Court on circuit in England, are competent to try all accused persons duly committed and to inflict any punishment authorized by law; but every sentence of death is subject to confirmation by the highest court of criminal appeal in the Province. Below them come the courts of magistrates, who are partly members of the Indian Civil Service and partly drawn from the locally recruited, and mainly native, Provincial services. Magistrates' courts are of three classes, those of the first having power to pass sentences of two years' imprisonment and a fine of Rs. 1,000, those of the second sentences of six months' imprisonment and a fine of Rs. 200, and those of the third sentences of one month's imprisonment and a fine of Rs. 100. Their powers are also defined by territorial limits, and with reference to the various classes of crime, a schedule to the Code setting forth, in regard to each offence, the grade of magistrate competent to try it. Magistrates of the first class, or of a lower class if specially authorized, are also enabled to commit for trial by the court of session such offences as are not within their cognizance or for which they are incompetent to inflict adequate punishment. The Local Government may, in a non-regulation Province[1], invest any magistrate of the first class with power to try, as such, any offence not punishable with death, and it may nominate special magistrates to dispose of particular cases or particular classes of cases in any area outside the Presidency towns. Provision is also made, and largely resorted to in the towns, for the appointment of honorary magistrates, for the formation of benches of magistrates, honorary or stipendiary, and for the appointment in the Presidency towns of Presidency magistrates to try minor offences and commit to the High Court persons charged with more heinous crime.

Courts of magistrates in the Mofussil.

Presidency magistrates.

Preventive jurisdiction.

The Code further confers on the magistracy large powers, carefully defined and safeguarded, for the prevention of offences: as, for example, power to require security for good behaviour or for keeping the peace, power to deal with unlawful assemblies, and power to abate or remove public nuisances. It is not always possible to empanel an efficient jury in the Mofussil; and trials before courts of session are, therefore, conducted with the aid either of assessors—who merely assist, but

Juries and assessors.

[1] As to Regulation and Non-regulation Provinces, see chaps. i and ii of this volume.

do not bind, the judge by their opinions—or of jurors, according to the general orders of the Local Government. And, where the agency of juries is used, the Code directs the Sessions Judge, if he considers that a jury has returned a manifestly wrong verdict, to submit the case to the High Court, which is empowered to set aside or modify the finding. An Indian jury consists of nine persons in trials before a High Court, and in other trials of such uneven number up to nine as may be prescribed by the Local Government; and the opinion of the majority is allowed to prevail. From a conviction by a second or third-class magistrate an appeal lies to the District Magistrate or to any specially empowered first-class magistrate; and, subject to certain limitations, original convictions by magistrates of the first class are appealable to the Sessions Judge, whose own original convictions are in turn appealable to the highest court in the Province. The latter court is empowered to call for and examine the record of any proceeding before any subordinate court for the purpose of satisfying itself as to the correctness, legality, propriety, or regularity of any finding, sentence, or order. A finding of acquittal is ordinarily final, but may be appealed against under the special orders of the Local Government or revised by the chief court in the Province in the exercise of its discretionary powers above referred to. This procedure is not, however, adopted save in the case of some manifest failure of justice. The system of Indian law thus allows considerable latitude in the matter of appeal. The inferior social standing of the native judiciary of the lower grades; the imperfect legal training of all the judges in early days; the general want, so far as the Mofussil is concerned, of the wholesome restraint exercised by a strong bar; and the absence of public opinion and of an intelligent press—these are among the reasons which have rendered a free right of appeal and a wide power of review and revision necessary to prevent injustice. Finally, the prerogative of mercy is exercisable in India by both the Governor-General-in-Council and the particular Local Government concerned, without prejudice to the superior power of the Crown.

Appeal and revision.

The constitution and jurisdiction of the inferior civil courts in each Province are determined by special Acts or Regulations. Under these the arrangements made differ in nomenclature and otherwise; but they are all similar in essential respects, and it will suffice to describe the system which prevails over the widest area, the reader being left to

Inferior civil courts under present system.

refer to the various enactments passed to regulate the matter elsewhere[1]. In the first place it may again be mentioned that civil suits are never tried by jury. Throughout Bengal, the Province of Agra, and Assam, there are three classes of courts, those of District Judges, Subordinate Judges, and Munsifs.

District Judges.

Ordinarily, one District and Sessions Judge is appointed to each administrative District, and he presides, in the former capacity, in its principal civil court of original jurisdiction. His jurisdiction extends—subject to the provisions of the Code of Civil Procedure, which require every suit to be instituted in the court of the lowest grade competent to try it—to all original suits, and he is vested with administrative control over, and the distribution of business among, all the other civil courts within the District. For these offices members of the Indian Civil Service, or, in accordance with the recommendations of the Public Service Commission of 1888, members of the Provincial Civil Service, alone are selected.

Sub-ordinate Judges. Munsifs.

Next to the District Judge come Subordinate Judges with coextensive original jurisdiction; while the lowest courts are presided over by Munsifs, whose jurisdiction is ordinarily limited to suits not exceeding Rs. 1,000 in value, a limit which may be extended to Rs. 2,000. Subordinate Judges and Munsifs are appointed from the Subordinate judicial service, recruitment for which is, in practice, left in the hands of the High Court. The persons selected are, as a rule, natives of India, and are frequently members of the native bar. In the less advanced Provinces, however, there is often no such separate service, the local civil courts being presided over by officers of the ordinary administrative staff, from Commissioners down to *tahsīldārs*.

Mofussil Small Cause Courts.

Besides the civil courts described above, there are in the Mofussil a number of special Courts of Small Causes with jurisdiction to try, in a summary manner and subject to a limited right of appeal, simple money-suits not exceeding Rs. 500 in value, a limit which may be raised to Rs. 1,000 in particular cases; and where such special courts have not been constituted, the Local Government may

[1] The principal enactments referred to are the Bombay Civil Courts Act, 1869; the Ajmer Courts Regulation, 1877; the Punjab Courts Act, 1884; the Coorg Courts Regulation, 1885; the Madras Civil Courts Act, 1885; the Upper Burma Civil Justice Regulation, 1886; the Bengal, North-Western Provinces, and Assam Civil Courts Acts, 1887; the Madras Village Courts Act, 1888; the British Baluchistan Civil Justice Regulation, 1890; the North-Western Provinces and Oudh Village Courts Act, 1892; the Lower Burma Courts Act, 1900; the North-West Frontier Province Law and Justice Regulation, 1901; and the Central Provinces Civil Courts Act, 1904.

confer upon selected Subordinate Judges and Munsifs jurisdiction to try, as 'small causes,' suits up to such value, not exceeding Rs. 500 in the case of a Subordinate Judge or Rs. 100 in the case of a Munsif, as it thinks fit. Finally, for the trial of petty cases at Calcutta, Madras, and Bombay, where the chartered High Courts have original jurisdiction within the Presidency towns, Small Cause Courts have since 1850 taken the place of the old Courts of Requests, and are invested with jurisdiction to dispose of money-suits when the amount or value of the subject-matter does not exceed Rs. 2,000, and suits of even higher value where the parties consent. At Madras the experiment has been tried of still further relieving the High Court by the constitution, under the Madras City Civil Court Act, 1892, of a City Civil Court with jurisdiction to try, *exceptis excipiendis*, all suits not exceeding Rs. 2,500 in value. In the Southern Presidency, and also in the United Provinces, the leading residents of villages may be appointed to sit, singly as Munsifs or together on benches, and under a similar procedure to dispose of petty claims valued at not more than Rs. 20, or with the consent of parties, Rs. 200. As insolvency courts the chartered High Courts at Calcutta, Madras, and Bombay have jurisdiction in the Presidency towns under an Act of Parliament of 1848; but in the Mofussil there is no special bankruptcy law, although the ordinary civil courts can, under the Code of Civil Procedure, provide a certain amount of relief for insolvent debtors[1]. As regards appeals, there is much the same latitude, and for the same reasons, as in connexion with criminal cases. Outside Small Cause Court jurisdiction, an appeal lies from every decision of a Munsif to the District Judge, but the latter is enabled to transfer such appeals to Subordinate Judges for disposal. Similarly, every decree or order made by a Subordinate Judge is appealable to the District Judge, unless the value of the original suit exceeded Rs. 1,000, in which case the appeal lies to the High Court. The decisions of a District Judge are liable to be taken on appeal to the High Court, and second or special appeals to the High Court are allowed in certain cases.

Presidency Small Cause Courts.

Madras City Civil Court.

Village Munsifs.

Insolvency courts.

Appeals.

The legal abilities of the natives of India have long been recognized, and in the agency provided for the administration of justice the native element largely predominates. The civil courts of grades below that of the District Judge are, as a rule, presided over entirely by natives, and the same may be said of

Native agency predominant.

[1] An Insolvency Bill is at present (1906) before the Governor-General's Legislative Council.

and judicial functions.

is the District, and the chief executive officer in each is the Collector-Magistrate or Deputy Commissioner. In his executive capacity this official is charged with the collection of the various branches of the revenue, and with a variety of other administrative functions which have been described in chapter ii of this volume. At the same time, he is the chief local magistrate, and is, as such, vested with extensive judicial authority. He is himself a magistrate of the first class, and can undertake such criminal work, original and appellate, as he chooses. He has the widest powers conferred by the Criminal Procedure Code for the prevention of crime, the suppression of disturbance, and the abatement of nuisances. He is competent to transfer cases for trial from one magistrate to another, or to himself. He can call for the records of any proceedings, and submit the case to the High Court for revision. He is empowered to order the commitment for trial of any accused person who has, in his opinion, been improperly discharged. Moreover, other magistrates of the first class are almost invariably also Assistant or Deputy Collectors, so that, although not subject to his appellate jurisdiction *qua* judicial officers, they are, in their executive capacity, his immediate subordinates. His own decisions are, however, appealable to the Sessions Judge, and he is himself subject to the superintendence and control of the High Court, while, as a matter of fact, he has but little time to devote to criminal cases, and seldom, if ever, interferes with them. But to the Western mind the arrangement may seem anomalous; and it has been urged, not only that the Collector's judicial authority should be taken away, but that, in the subordinate ranks also, executive and judicial functions should be dissociated and assigned to different officers. On the other hand, the union is one to which the people of India are well accustomed, for it has existed from time immemorial in the East, and separation is the rule only of the most advanced Western communities. The matter has often been under consideration, and the question whether, or how far, the suggested separation is practicable is once more engaging the attention of the Government of India.

European British subjects and the courts.

The exclusive jurisdiction over Europeans long asserted by the Crown Courts, and the complete independence of all other tribunals at first claimed for them, have now almost entirely disappeared. Under the Criminal Procedure Code, a European British subject, as there defined [1], may be tried—save for con-

[1] The definition includes colonial subjects of His Majesty of whatever race, and children and grandchildren by legitimate descent.

tempt in open court—only before a judge or magistrate who is a justice of the peace[1]; and, when tried before a District Magistrate, a Sessions Judge, or a High Court, he can claim the right of a trial by jury, of which not less than one-half must be Europeans or Americans. Moreover, when a European British subject is dealt with under the special provisions of the European Vagrancy Act, 1874, he cannot be required to give security for good behaviour under the ordinary law; but on being declared a vagrant or found guilty of certain offences under that Act, he becomes subject to the provisions of the code applicable to a European who is not a British subject. Finally, a right of the nature of *habeas corpus* is secured to European British subjects in any part of British India, whereas similar protection is afforded to natives only within the Presidency towns. Otherwise Europeans and natives in British India are subject to the same civil and criminal jurisdiction; but the courts in the Native States are not allowed to try the former, who must be taken before British tribunals established locally in the exercise of foreign jurisdiction, or before courts of competent jurisdiction in British India.

The appointment of coroners for the holding of inquests with the aid of juries on the bodies of persons coming to an untimely end was first provided for by the East India Company Act, 1793, the judges of the Supreme Courts being charged with the performance of these functions. Now coroners are appointed for the Presidency towns of Calcutta and Bombay only, and in the rest of British India their duties are undertaken by the ordinary staff of magistrates and police officers, unaided by jurors. Coroners.

The various classes of legal practitioners in India are advocates, Vakīls, and attorneys (solicitors) of High Courts, and pleaders, Mukhtārs, and revenue-agents. Advocates are admitted by each High Court to practise in it and its subordinate courts, and they alone are allowed to appear on the original side of the chartered High Courts. The majority of them are Europeans; but native barristers are becoming more and more numerous. Vakīls are persons qualified as Bachelors of Law of an Indian University, who are admitted, after having served articles of clerkship and otherwise proved their fitness, Legal practitioners.

[1] European British subjects alone may be appointed to be justices of the peace outside the Presidency towns; but certain high officials, as well as Sessions Judges and District Magistrates, are *ex-officio* justices. Nowadays they have, as justices, no judicial functions to perform, and their existence is of little practical importance save in respect of accused European British subjects.

to practise on the appellate side of a chartered High Court. They are, with but few exceptions, natives. Attorneys are required to qualify before admission to practise in much the same way as solicitors in England, and their ranks are filled by both Europeans and natives. But the rule that a solicitor must instruct counsel prevails only in practice on the original side of a chartered High Court, and consequently few attorneys are to be found anywhere except in the Presidency towns. Pleaders and Mukhtārs are admitted to practise in subordinate courts in accordance with rules framed by the various High Courts, while the appearance of revenue-agents and others before revenue courts is similarly superintended by the chief controlling revenue authority in each Province. Pleaders are of a higher grade than Mukhtārs, whose practice is confined to the lowest civil and criminal courts, and to the revenue courts; and in the Regulation Provinces the Subordinate judicial services are in the main recruited from the former body. The Legal Practitioners Act, 1879, provides for the suspension and dismissal of legal practitioners for unprofessional conduct, for their supervision generally, and for the suppression of touting.

Law Reports.

With the object of diminishing the multitude and expense of the published Law Reports and of improving their quality, the Government of India has undertaken the publication of authorized reports of important cases decided by the chartered High Courts; and the legislature has dealt with the matter by enacting in the Indian Law Reports Act, 1875, that no court shall be bound to hear cited, or shall receive or treat as an authority binding upon it, any but the authorized report of such a case, if decided after the commencement of that Act. Accordingly the Indian Law Reports, so entitled, are prepared by official reporters in four different series, one for each of the High Courts, under the supervision of local councils of law-reporting, on which both the bench and the bar are represented. They contain cases selected from among those decided by the chartered High Courts, as well as cases decided by the Privy Council on appeal. But the provision made by the Act is, on the face of it, incomplete; for, as has been shown, many of the Provinces are without chartered High Courts, and the inferior courts of one Province are not bound by the decisions of even the highest court of another. The system has, therefore, been supplemented by the publication, more or less under official guidance or recognition, of other reports, such as those to be found in the *Punjab Record*. An alphabetical digest of reported cases decided by the chartered High Courts and the

Privy Council has also been compiled under the orders of Government.

Law Officers

The Legislative Department of the Government of India corresponds with the office of the Parliamentary Counsel in England, and is in charge of the Law Member of Council. All Government measures introduced in the supreme legislature are drafted by its officers, and the Secretary is also the Secretary to the Council and attends the meetings both of the Council and of select committees. The Department is responsible for the publication of Acts, for the drafting of statutory rules and orders, and for the settling of Regulations under the statute of 1870, and it is further required to assist the other departments with legal advice in regard to certain specified questions of a non-litigious nature. The Bengal and Burma Legislative Councils have official draftsmen of their own, but the other local legislatures still depend for the drafting of their measures on their ordinary legal advisers. Law Member and Legislative Department of Government of India.

The principal law officer of the Government of India is the Advocate-General of Bengal, who is appointed by the Crown under sec. 29 of the Government of India Act, 1858, and whose functions, besides those of advising the Government and conducting its litigation, are referred to in sec. 111 of the East India Company Act, 1813, the Codes of Civil and Criminal Procedure, and certain other enactments. The Advocate-General is the leader of the local bar, and is always nominated a member of the Provincial Legislative Council. At Calcutta he is assisted by the Standing Counsel and has also at his disposal the services of the Government Solicitor there. The Governments of Madras and Bombay have each an Advocate-General similarly appointed, as also a Government Solicitor; and the Bombay Government is further provided with the services of a Legal Remembrancer and an Assistant Legal Remembrancer, who are ordinarily members of the judicial branch of the Indian Civil Service. The Government of Bengal consults the Bengal Advocate-General, the Standing Counsel, and the Government Solicitor, and has besides a Legal Remembrancer and a Deputy Legal Remembrancer, the former a civil servant and the latter a practising barrister; the United Provinces are furnished with a civilian Legal Remembrancer and professional lawyers as Government Advocate and Assistant Government Advocate; the Punjab has a Legal Remembrancer, a Government Advocate, and a Junior Government Advocate; and Burma Advocates-General, Standing Counsel, and Government Solicitors. Legal Remembrancers and other officers of Local Governments.

a Government Advocate, besides a Secretary to the local Legislative Council. The minor administrations are less fully equipped; but legal advice can be obtained by them through the Government of India, and throughout the Mofussil native Government Pleaders are appointed at the head-quarters of Districts to assist the local executive officers and appear for them before the courts.

Sheriffs.

There remain to be noticed the three Sheriffs, who are attached to the High Courts at Calcutta, Madras, and Bombay, on their original sides, and are charged with the execution of process, the custody of jurors, and so forth. Each Sheriff is appointed from year to year by the Government on the nomination of the court. He is in practice always a non-official of influence and standing.

Statistics

Statistics of litigation and crime.

The following figures will serve to indicate the prevalence of litigation and crime in British India, and the extent to which the courts have been resorted to during the twenty years ending with 1901:—

		1881.	1891.	1901.
	Total population	198,860,606	221,172,952	231,901,127
Civil suits.	Total suits instituted	1,431,486	1,858,646	2,228,556
	Suits instituted for money or movables	1,035,391	1,144,769	1,213,063
	Rent suits	229,870	537,365	746,093
	Title and other suits	127,384	170,511	263,985
	Miscellaneous	38,841	6,001	5,415
Criminal prosecutions.	Persons tried	1,099,044	1,612,819	1,636,909
	" convicted	678,142	767,733	863,309
	Total offences committed	716,241	1,082,795	1,121,531
Offences.	Offences against person or property	490,398	512,318	455,772
	Offences against other provisions of the Indian Penal Code	63,006	91,207	95,513
	Offences against special or local laws	162,837	*479,270	*570,246
Punishments inflicted.	Sentences of death	474	427	500
	Sentences of transportation	1,319	1,872	1,690
	Sentences of imprisonment	147,606	167,845	160,204
	Sentences of whipping †	22,609	19,556	25,941
	Sentences of fine	483,541	570,827	628,065

* The increase under this head as compared with 1881 is mainly due to greater vigilance in applying sanitary regulations in municipalities, and to the enforcement of fiscal or *quasi*-fiscal laws, such as the Salt, Excise, and Forest Acts.

† This penalty is authorized, in the case of males, for theft and certain other offences.

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CHAPTER VI

FINANCE

Preliminary remarks. The growth of revenue and expenditure.

Two simple facts give the key to the special conditions of Indian finance. More than 90 per cent. of the population is rural and subsists mainly by agriculture. The total value of Indian imports and exports rose in the sixty years ending with 1903–4 from 28 to 246 crores of rupees[1]. Although the population of India still consists in the main of a poor peasantry, great strides have been made in the development of her resources, and her national wealth is growing apace. This economic progress has been accompanied by an enormous rise in the revenues and expenditure of the state. The gross revenues of India amounted to 21 crores in 1840, to 43 crores in 1860–1, to 70 crores in 1880–1, and to 113 crores in 1900–1. These figures are given merely by way of general illustration: the acquisition of new territory and changes in the system of finance and accounts rob them of any claim to form a basis for accurate financial comparison. The expenditure incurred from these growing resources represents a complete revolution in the condition of the country. Since the days of the Mutiny, India has been equipped with the apparatus of a modern civilized state. The courts of justice, the police, and the jails have been enormously improved. The emoluments of all classes of native officials have been raised, and an increasing share in the work of administration has been transferred to them. A wide system of public instruction has been developed; some three thousand hospitals and dispensaries bring medical relief within reach of the people; and large sums have been spent in improving the sanitary condition of towns and villages. Great systems of railways and irrigation works have been constructed, and the post office and telegraph departments have been brought to a high pitch of efficiency[2]. These are some of the most impor-

[1] *Financial and Commercial Statistics of British India*, tenth issue.

[2] 'There was formerly in British India, comparatively speaking, little of what we now think the first necessities of a civilized administration. When, in 1844, I first went from Calcutta to the North-Western Provinces, I was carried about a thousand miles in a palanquin on men's shoulders,

tant changes which have taken place, but they by no means exhaust the tale. In many other directions measures have been carried out to improve the administration and benefit the people; and though much yet remains to be done, the general progress made during the last half-century is sufficiently striking.

Causes of the growth of revenue.

It may be asked whether so great and wide an activity, involving so large an increase of expenditure, is consistent with the condition of a country the bulk of whose inhabitants are admittedly poor and unable to bear an incidence of taxation such as prevails in modern Europe. There need be no hesitation in answering this question in the affirmative. The growth of revenue which has made the expenditure possible is due to increasing prosperity and better management, and not to the imposition of new burdens on the taxpayer. There is no considerable source of Imperial taxation now in existence which had not already been imposed in 1860, and in most cases the increase in the total receipts has accrued in spite of reductions in the rate of assessment. The incidence of the land revenue on the area of cultivation has been much diminished; the rate of import duties is smaller, and practically all export duties, except that on rice, have been abolished; the salt duty, the only obligatory tax paid by the masses, has been lowered for practically the whole population; the present income-tax is at a less rate, and has a higher minimum limit of assessment, than that imposed in 1860. The large increase in the excise revenue is mainly due to enhanced duties accompanying a better administration and a more successful suppression of illicit manufacture and sale. Municipal and rural rates are the only taxes which are to some extent of a later origin than 1860. The total municipal taxation amounted in 1902–3 to about $3\frac{1}{2}$ crores, the whole of which is not of *post*-Mutiny origin. Municipal taxes or their equivalent existed in some places at an earlier date, and a portion of the present municipal taxation consists of items transferred from the Government account. Taking into account the reductions effected in 1905–6 and 1906–7,

and it took some three weeks to toil through a journey which is now accomplished in twenty-four hours; there were no other means of travelling through the richest and most civilized parts of India. Speaking generally, roads and bridges had only begun to appear; railways were not thought of; the value of irrigation as a means of affording protection to the people against famine had hardly been recognized; there were few barracks in which English soldiers could live with tolerable health and comfort; there were few jails in which a sentence of imprisonment did not carry with it a serious probability that it would prove a sentence of death.'—Sir John Strachey's *India* (3rd edition), p. 9.

rural rates now amount to about $3\frac{1}{2}$ crores, and some portion of this was already paid in 1860 in the form of voluntary and other cesses. The rural rates are included in the general accounts, and practically the only taxation outside those accounts is that levied for municipal government.

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Apart from the growth of the revenue, it may occasion surprise that the total (about £85,000,000 in 1904–5) should exceed half the amount of the Imperial receipts in so wealthy a country as the United Kingdom. But in making a comparison between India and England there are several circumstances of great importance to be taken into consideration. The population of British India is more than five times that of the United Kingdom, and the Indian accounts include the figures of eight large Provinces, each of which is a kingdom in itself. The Government of India performs many functions outside those which ordinarily fall to the state in England. In addition to governing the people, it holds in large parts of the country the position of a landlord; it is also a great proprietor of railways, irrigation works, and forests, and a manufacturer of salt and opium; it provides a large portion of the expenditure on national education and medical relief; and it undertakes many duties which in England are performed by private persons or bodies. Furthermore, it must be remembered that, apart from the $3\frac{1}{2}$ crores of municipal rates, the Imperial accounts of India include, as stated above, practically the whole extent of taxation, while in the United Kingdom the local rates form a heavy addition to the general burden. But India could not have afforded her present scale of expenditure were it not that she is fortunate in deriving more than half her income from sources other than taxation. The land revenue, the largest item of all, represents a charge on agricultural profits which would in Western countries be appropriated by private landlords, and the fact that in India it is paid to the Government does not alter its nature. A large but varying sum is derived from opium consumed in China; and the forests, the railways, the irrigation works, the post office, the telegraphs, and the mints all contribute their quota. The direct taxation of the Mughal empire, raised as it was from a smaller population and cultivated area, and when the purchasing power of the rupee was considerably higher than it is now, was heavier than that now levied by the Indian Government[1].

[1] See on this subject Hunter's *Indian Empire* (3rd edition), pp. 357 and 547; Mr. Stanley Lane Poole's *Aurangzeb* (Rulers of India series), chap. vii; and chap. vii of the present volume.

History of Indian finance. From the beginning of the nineteenth century to the Mutiny.

Before entering on a more detailed description of the financial system it will be convenient to give in brief outline an account of the more important incidents which have attended its growth and influenced its character. The financial administration of the Company during the first half of the nineteenth century was not marked by great sagacity, and was embarrassed by the need for maintaining a large army and by numerous and costly wars undertaken for the consolidation and protection of the empire. Between 1814 and 1875 there were twenty-eight years of deficit and only fifteen years in which the revenues exceeded the expenditure. Constant borrowing was needed to meet this heavy drain, and the Government debt rose between 1834 and 1857 from 40 to 60 crores, the whole of which was for ordinary and military expenditure. The total deficit in the year of the Mutiny and the two following years amounted to over 30 crores, and in 1859–60 the expenditure on the army and military police absorbed half the revenues. A considerable augmentation of salt, customs, and stamp duties brought little relief, and the financial position occasioned the gravest alarm.

1860–5.

In this crisis Mr. James Wilson, the first Finance Minister of India, was sent from England[1]. His advent inaugurated a new financial era. The accounts system was put in order, great reductions were made in the cost of the army and military police, and economies were effected in all branches of the administration. The military charges alone were reduced by $6\frac{3}{4}$ crores in three years. At the same time the revenues were increased by an income-tax imposed as a temporary measure for a period of five years. With skilful management the finances showed an exceedingly rapid recovery. Equilibrium was restored after two years, and the next four years were on the whole prosperous. The customs tariff was reformed, and the general rate of import duties reduced from 10 to $7\frac{1}{2}$ per cent., while in 1865 the five years of the income-tax came to an end.

1866–72.

Then followed a period, extending roughly from 1866–7 to 1869–70, in which the financial authorities had to struggle to keep pace with the demands made on all sides for funds for improved administration. Every branch of the service was in need of more or less costly extension and reform, and the one item of improved barrack accommodation was estimated to cost 11 crores. The situation was aggravated by a general rise in prices and wages, and by two severe famines—the Orissa famine

[1] Prior to Lord Canning's viceroyalty and Mr. Wilson's appointment the finances of India had been dealt with by the Governor-General and his Council collectively. See chap. i of this volume.

of 1865–7 and the prolonged drought of 1868–70 in the United Provinces and Rājputāna. The finances were not equal to the strain, and the first three years of the period showed a total deficit of more than 6 crores. The income-tax was reintroduced in 1867–8 in the form of a licence tax, and its scope and rate were changed from year to year to meet the varying circumstances of the times. In 1870–1 it reached its maximum of a general tax of $3\frac{1}{8}$ per cent. on all incomes, including those derived from the land. In the same year a most important measure was introduced in the interests of economy and good administration. The Local Governments had possessed, hitherto, practically no control over their own revenues, and the grants for the services in each Province were made annually by the Supreme Government. There was hardly any limit to the amount of money that could be usefully spent in every part of India, and the local administrations were naturally impressed more by their own needs than by the financial embarrassment of a central and distant Government. In these circumstances, as Sir Richard Strachey (to whom the credit of the remedial measures undertaken is largely due) wrote, 'the distribution of the public income degenerated into something like a scramble, in which the most violent had the advantage, with very little attention to reason; as local economy brought no local advantage, the stimulus to avoid waste was reduced to a minimum, and as no local growth of the income led to local means of improvement, the interest in developing the public revenues was also brought down to the lowest level[1].'

To remedy this grave defect Lord Mayo introduced the system of making a fixed grant to each Local Government for the administration of the Provincial services, requiring it to provide for any additional expenditure by the exercise of economy and the imposition, where necessary, of local taxes. The change had the desired effect; economies were effected without loss of efficiency; small local cesses were imposed in several Provinces; and the Supreme Government was relieved of a portion of the annually increasing drain on its resources. Other measures taken to augment the revenues were a revision of the stamp duties in 1867–8, and an increase in the rate of salt duty in Madras and Bombay (where it was much lighter than in Northern India) in 1869–70. The customs tariff was revised, and a number of articles were exempted from import duty at the cost of some loss of revenue. The year 1869–70 resulted in a practical equilibrium of the finances, and the two

[1] Sir John Strachey's *India* (3rd edition), p. 113.

following years showed a large surplus, the growth of the revenues having at last overtaken the demands for fresh expenditure. In 1871–2 and 1872–3 the Government was able to make large reductions in the income-tax, and at the end of the latter year it was altogether abolished.

No sooner, however, was equilibrium restored than fresh 1873-6. difficulties beset the administration, and the years 1873–4 to 1876–7 were fraught with financial embarrassment. The special obstacles which had now to be encountered were famine and a falling exchange. In 1873–4 the first note of serious alarm was sounded in connexion with the decline in the gold value of silver which was destined to be for so many years the *crux* of successive Finance Ministers. In that and the three following years exchange fell by a total of 2½*d.* in the rupee, increasing enormously the cost of making remittances to England to meet sterling payments. At the same time the Bihār famine of 1873–4, and the Deccan famine of 1876–8, cost the Government over 16 crores in special expenditure and loss of revenue. In consequence of these calamities each of the years 1873–4, 1876–7, and 1877–8 showed a large deficit. No fresh taxation was however imposed, and the only important fiscal change was a reduction in the rate of general import duties from 7½ to 5 per cent.

We now come to the period of great financial reforms intro- 1877-83. duced by Sir John Strachey and completed by Sir Evelyn Baring (Lord Cromer). They cover the period 1877–8 to 1882–3. The programme of reform included the resettlement on a wider basis of the system of Provincial finance, a scheme for meeting the periodical loss due to famine, the equalization of the salt duties, and the abolition of the general import duties. Each of these matters is discussed either in a later portion of the present chapter or in chapter viii, and only a general view need be given here. In the Provincial settlements of 1870–1 a fixed sum had been made over to each Local Government to defray the cost of Provincial services; a share in the revenues was now substituted for this fixed grant. This gave a margin, which might be increased by careful management, with which to meet growing expenditure. The settlements were made liable to periodical revision, and the system thus established has existed to the present time. The object of the famine policy of Lord Lytton's Government was to obtain an annual surplus of 1½ crores of ordinary revenue over ordinary expenditure, which should be applied in ordinary years to the reduction or avoidance of debt, and thus to provide for the losses and expenditure

incident to famine without crippling the resources of the state. A careful investigation of revenue and expenditure showed them to be almost in equilibrium; and the additional funds needed for the famine reserve were provided by diminishing to the extent of 40 lakhs the assignments for Provincial expenditure, by a licence tax on the trading classes (estimated to yield 70 lakhs), and by fresh cesses on land (estimated to yield 50 lakhs). In 1878–9 the duty on salt in Northern and Southern India was equalized at the rate of Rs. 2–8 a maund, which in March, 1882, was reduced to Rs. 2. This reform was of the greatest importance, not only because it largely reduced the tax for 148 million people, but as enabling the Government to abolish the great customs line which had previously divided India into two parts. A duty which had been levied on sugar carried across the customs line from the North was also abolished. In 1878 and 1879 the import tax on coarse cotton cloth, which operated as a protective duty in favour of Indian as against English goods, was removed and a number of other articles were placed on the free list. In 1882 the general import duties were altogether abolished. The expediency of this course was questioned at the time, and it will be seen shortly that, when fresh financial trouble overtook the Government, the duties had to be reimposed. These important changes in the fiscal system were not carried out during a time of financial ease. In 1877–8, the first year of the period, famine still raged in Southern India. During the following three years the Government had to meet the heavy expenditure of the Afghān War, which amounted to over 16 crores, exclusive of a contribution made by England, while in 1878–9 there was a further fall in exchange. These causes resulted in considerable deficits in 1877–8, 1879–80, and 1880–1, but the following three years were prosperous and in each of them the reorganized fiscal system yielded a considerable surplus. The revenue surrendered under the heads of salt and customs was far greater than the new revenue derived from the enhancement of the Provincial rates (land-cesses) and the licence tax, but the result justified the confidence placed in the continual growth of the ordinary revenues. In 1876–7 the gross revenue was about $58\frac{1}{2}$ crores; in 1882–3 it amounted to over 70. Allowing for loss of revenue in the former year in consequence of the famine in Southern India, the improvement is equal to about 10 crores. In 1882–3 the Provincial settlements came up for revision; and the financial position was so good that it was found possible to increase the assignments for Provincial services, and to reduce taxation in

the United Provinces, where economic progress had not been satisfactory, by abolishing the *patwāri* cess (for the maintenance of village revenue officers) at a cost of 24 lakhs. A portion of this tax was reimposed in 1889–90, but again remitted in 1906–7.

The good times which followed Sir John Strachey's reforms were not of long duration. In 1884–5 the finances were in practical equilibrium, notwithstanding depression in the wheat and rice trade (affecting railways and customs), and an unusually heavy outlay on opium production; but two of the following four years showed a heavy deficit, and in the remaining two a small surplus was secured only by partially suspending the famine insurance grant. This deterioration resulted from a heavy fall in exchange, increased military expenditure, and the annexation of Upper Burma. Exchange fell by 3*d.* in the rupee, and every fall of a penny meant an additional expenditure of over one crore. In 1885 occurred the Panjdeh incident on the Russo-Afghān border and the conquest of Upper Burma. The imminent danger of war with Russia involved an outlay on military preparation of two crores, and the Burmese War cost 60 lakhs. In neither case did the matter stop with the initial expenditure. The progress of a great European power towards the borders of India made it necessary to reconsider the military position. The army was increased and larger sums were spent during several years on strategic railways, fortifications, and other works on the frontier. The restoration of order in Upper Burma, and the administration of the Province, also entailed a large net outlay until, after several years, the newly acquired territory began to develop and its revenues to expand. The arrangements so carefully elaborated during Lord Lytton's viceroyalty broke down under the strain of this accumulated expenditure, and recourse was had to fresh taxation. In January, 1886, the licence tax was converted into a general tax on non-agricultural incomes in excess of Rs. 500 per annum, and in 1887–8 it was found necessary to enhance the salt-tax from Rs. 2 to Rs. 2–8 a maund, and to impose an import duty on petroleum. The additional revenue thus obtained amounted to about 2½ crores. At the same time rigid economy was enforced in the civil administration, and a special Committee was appointed to investigate the directions in which expenditure might be reduced. Partly owing to the savings which it suggested, the revision of the Provincial finances in 1886–7 resulted in an addition to the Imperial resources of 64 lakhs a year. These measures sufficed to restore equilibrium, and, with a recovery in the rate of exchange, three years of financial

1884–91.

prosperity followed, during which surpluses were secured notwithstanding continued heavy expenditure on military equipment and defences.

-4. These prosperous times were quickly followed by a crisis in the calamitous history of exchange. In the three years 1892–3 to 1894–5 exchange fell from 1*s.* 3*d.* to 1*s.* 1*d.* In June, 1893, the Indian mints were closed to the free coinage of silver, and the Government embarked on the currency policy which has given to India what is practically a gold standard and a stable rate of exchange at 1*s.* 4*d.* to the rupee. The finances could not hold out against the enormous losses which resulted from the fall of exchange, and the years 1892–3 and 1893–4 showed a growing deficit in spite of rigorous economy and the resumption, at the resettlements of 1892–3, of a portion of the growing revenues of the Provincial Governments. In March, 1894, it became necessary to reimpose a general import duty at the old rate of 5 per cent. Cotton goods were in the first instance excluded from the lists of dutiable articles; but the financial position becoming worse in the course of the year, the exemption could no longer be maintained, and in December they were made liable to the 5 per cent. tax, a countervailing excise duty being at the same time levied on the produce of Indian mills. The new duties increased the revenue by about 3 crores.

This brings us to the end of the period of exchange difficulty. During the next five years the value of the rupee rose steadily, and in 1899–1900 reached the 1*s.* 4*d.* rate which was the goal of the Government policy. The period from 1895–6 to the present time (1906) has been one of financial prosperity and commercial and industrial growth, marred by two widespread famines of exceptional severity and a terrible visitation of plague. The first famine occurred in 1896–7 and the second in 1899-1900. On the first occasion the direct expenditure on famine relief exceeded 7 crores, and on the second occasion 9 crores, while the indirect losses due to remission of land revenue and miscellaneous causes amounted to an even greater sum. The inhabitants of some Provinces underwent extreme suffering, but in almost all parts the recovery with better seasons was extraordinarily rapid, and during the past few years the country has, on the whole, enjoyed economic and financial prosperity. In 1897–8 extensive military operations undertaken against the tribes on the north-west frontier cost nearly 5 crores. The two years 1896–7 and 1897–8 showed a total deficit of 7 crores, but every subsequent year, including the two years of famine, yielded a considerable surplus. It was not necessary to impose

fresh taxation; and the only important fiscal changes made during the period were the reduction of the duties on cotton cloth from 5 to 3½ per cent., the exemption of cotton twist and yarn, and the imposition of a countervailing duty to protect Indian refined sugar against the competition of bounty-fed beet sugar imported from Europe. From 1897–8 onwards the revenues have mounted up year by year, and the gross revenue of 1901–2, which showed a surplus of nearly 8 crores, exceeded by more than 16 crores the gross revenue of the prosperous year 1895–6. In 1902–3 the Government was able to remit 2 crores of arrears of land revenue due to the famine, and to provide special grants for minor irrigation works, for education, for public works, for medical requirements, and for Provincial administrative purposes, while the year closed nevertheless with a surplus of 5½ crores. The absence of Indian troops in South Africa and China resulted, between 1899–1900 and 1902–3, in a large saving of military expenditure. On the other hand, the lessons taught by the Boer War have made it necessary to incur considerable outlay on equipment and transport.

The financial position for 1903–4 justified, for the first time since 1882, a liberal remission of taxation. The salt-tax was reduced from Rs. 2½ to Rs. 2 per maund, and the payers of income-tax were relieved by freeing all incomes of less than Rs. 1,000 per annum from the operation of this tax. These remissions of taxation amounted to 1·8 crores, and further special grants were made for public works. A concession, announced at the Delhi Darbār of January, 1903, was also made to Native States which had borrowed money from the Government of India for famine purposes. The interest on these loans was remitted for a period of three years. In addition to the above remissions, 2·6 crores were granted to Provincial Governments for various purposes. Nevertheless the surplus of 1903–4 was about 5½ crores, and that of 1904–5 exceeded 6 crores.

In 1905–6, the salt-tax was further reduced from Rs. 2 to Rs. 1½ per maund; the famine cesses imposed in Northern India in 1877–8 were remitted; and large grants were made to Local Governments for police, education, and agricultural development, as also for subventions to local boards. Nevertheless, the revised estimate for that year shows an actual surplus of 3·4 crores, of which 74 lakhs was applied to reduction or avoidance of debt. The budget for 1906–7 makes additional provision for increased expenditure on police and education, while at the same time local taxation has been reduced by the abolition of cesses levied for the payment of

village officials, and for the maintenance of the District post system, now transferred to the Imperial postal service. But the year is estimated to close with a surplus of 1·3 crores.

Moreover, the years 1904–5 to 1906–7 marked the introduction of a revised system of financial settlements which will be referred to later on.

ails of nue expen- re.

The growth of the different items of revenue and expenditure is illustrated by the second and third tables at the end of this chapter. They cover an interval of twenty-seven years between 1876 and 1903, and the figures for 1903–4 and 1904–5 have been added for comparison. It is difficult to extend the survey over a longer period, because changes introduced in 1884–5 in the manner of exhibiting loss by exchange were not applied to the accounts of years prior to 1876–7. For the sake of simplicity the figures are shown net: that is to say, expenditure incurred in collecting the revenue is deducted from the gross receipts under each revenue heading, and departmental receipts are deducted from the gross outlay under each expenditure heading.

venue ived m taxa- n and m other rces.

The revenue statement is divided into the two main heads of taxation and receipts other than taxation. At the beginning of the period 1876–1901 taxes yielded 38 per cent., and at the end 50 per cent., of the total net revenue. This calculation excludes the net receipts from the commercial departments—railways, irrigation, post office, and telegraphs—which are shown by minus entries (in italics) in the statement of net expenditure. Taking the gross revenue, the share realized from taxation proper is now about 26 per cent., whereas in the United Kingdom about five-sixths of the gross revenue is derived from taxation.

e land enue.

The land revenue throughout the greater part of Bengal, and in portions of the United Provinces, Madras, and Assam, has been fixed in perpetuity; elsewhere it is subject to periodical revision. The revision is made by Districts, and the ordinary term of a settlement is thirty years in Madras, Bombay, and the United Provinces, and twenty years in the Punjab and the Central Provinces. In backward tracts, such as Burma and Assam, where there are much waste land, low rents, and a fluctuating cultivation, shorter terms are permitted. In a Resolution issued in January, 1902, the Government of India justified its land revenue policy as being one of progressive moderation[1]. The share of the 'assets' reserved to the Government has been

[1] See on this and other points connected with the land revenue, chap. vii of this volume.

continually diminished; but the value of the 'assets' themselves has increased so greatly with extended cultivation, a growing population, rising prices, and the development of trade, that a diminishing share has yielded a gradually increasing revenue. Allowing for remissions due to famine in these years, the standard of net land revenue in 1876–7 was about 18·8 crores, and in 1900–1 about 24 crores. Deducting from the latter figure the land revenue derived from Upper Burma (annexed in 1886), the total increase was a little more than 4 crores in twenty-five years, or about 16 lakhs per annum. In years of drought the land revenue collections fall far below the normal; and the influence of famines which marked this period was so great that, in spite of considerable enhancements on resettlement, the total of the collections during the five years 1896–7 to 1900–1 was only 36 lakhs in excess of the total during the preceding five years. Apart from the fluctuations due to famine, the land revenue shows a fairly constant advance, but its increase has not kept pace with the general rise of the revenues: in 1876–7 land revenue formed 44 per cent., and in 1902–3 only 39 per cent., of the total net receipts. In addition to the land revenue proper, this head of account includes a number of other receipts, such as sale proceeds of land, receipts from fisheries, house and capitation tax in Burma, and various miscellaneous items. The enhancement of the land revenue which is directly attributable to the effect of the Government irrigation works is shown in the accounts as an irrigation receipt. This item rose from 40 lakhs in 1876–7 to 122 lakhs in 1902–3.

Tributes. The second head of the statement, 'Tributes and contributions from Native States,' is a comparatively petty item. The contributions are made chiefly in lieu of former obligations to supply or maintain troops, and form a small return for the duty undertaken by the Supreme Government in ensuring the peace of the country.

Forests. The forest revenue is almost entirely derived from the sale of timber and other forest produce, the property of the Government. The Forest department has looked to the preservation and improvement of this valuable source of wealth rather than to the raising of an immediate large income, but its operations have been a source of increasing profit, which would have been greater of late years but for the effect of famine.

Opium. The revenue arising from the opium consumed in India is credited in the accounts under the head of excise, and the opium revenue proper is derived from the produce exported to other countries, among which China takes by far the largest

portion. The net annual opium revenue is subject to great fluctuations, which arise from variations in the price of the drug and in the character of the seasons. The immediate effect of a good crop is to diminish the net revenue of the year, since it increases the amount payable to the cultivators while the out-turn is not ready for sale until the following year. The price obtained is influenced mainly by the condition of the China market, where the native produce is becoming a formidable competitor. The political changes which have occurred in the Far East make this source of revenue even more precarious than was formerly the case. The general trend during the twenty-five years ending with 1901 has been steadily downward; and each quinquennial period has shown a diminution of the average net revenue, which has been specially marked since 1895, the subsequent quinquennium having been one in which the Indian crops were poor and the prices paid to the cultivators had to be increased. In 1876–7 opium yielded 16 per cent., and in 1902–3 only 7 per cent., of the total net revenue. There has since been some recovery, probably only temporary.

Salt. The general rate of salt duty remained at Rs. 2–8 a maund[1] since it was raised to that level, under circumstances already narrated, in the year 1888, until recent reductions in 1903 and 1905. The duty on trans-Indus salt was raised in 1896, though still to a lower figure than the general rate, but the addition thus made to the revenue was comparatively trifling. The consumption of salt is a sure index to the condition of the people: it rises in prosperous years and falls when there is famine or scarcity. Temporary fluctuations apart, there has been a satisfactory rise in consumption since 1887–8, which, combined with the growth of population, secures a steady increase of revenue. The net revenue amounted to 6·8 crores in 1888–9 and to 8·4 crores in 1902–3, the last year of the Rs. $2\frac{1}{2}$ duty. The average incidence was, in 1903, 4·9 annas (say, 5*d.*) per head of the population, and has been considerably reduced by the recent revisions in the rate of duty, which have taken off two-fifths of the tax formerly levied over the greater part of the country.

Excise. The excise revenue is derived from intoxicating liquors, hemp drugs, and opium consumed in the country, and is levied in the form of duty on manufacture and fees for sale licences. Increasing prosperity and better administration have secured a fairly continuous increase of net revenue, amounting on an average to about 13 lakhs a year, a figure which has been considerably exceeded in the years 1901–4. Like the salt,

[1] R. 1 per maund in Burma.

forest, and land revenue, the excise receipts always show a marked falling-off in years of famine or scarcity.

Customs. The customs revenue is mainly derived from the general import duty, certain special import duties such as those on arms, liquor, sugar, and petroleum, and an export duty on rice. The general import duties were, as already stated, reimposed in March, 1894; cotton goods were included in the dutiable list in December of the same year, and the duty on cotton cloth was lowered from 5 to $3\frac{1}{2}$ per cent. in February, 1896, cotton twist and yarn being simultaneously exempted. The only important change made since that date is the imposition of a countervailing duty on beet sugar imported from Europe. In 1896–7, the first year of the existing arrangements, the net customs revenue amounted to 415 lakhs; in 1900–1 it was 467 lakhs or, without the countervailing sugar duty, 446 lakhs. The receipts for 1901–2 showed an increase of nearly 70 lakhs over the figures for 1900–1, and those for 1902–3 a further increase of 15 lakhs. The customs revenue rises with the growing trade of the country and fluctuates according to the circumstances of the year. It is to a certain extent threatened by a cause which is, from every other point of view, a matter for satisfaction: namely, that the growing native industries are beginning to supply wants hitherto met from abroad. Instances in point are the rapid expansion in the local production of petroleum and the development of the cotton industry.

Assessed taxes. Apart from a small local tax in the Central Provinces, abolished in 1902–3, the receipts from assessed taxes shown in Table II consist entirely of the general tax on non-agricultural incomes above Rs. 500, which was substituted in 1886 for the licence tax of 1878. The net proceeds of the tax amounted in 1886–7 to 128 lakhs, and in 1902–3 to 207 lakhs. This tax is less affected by the accidents of the year than other forms of revenue, and has increased steadily, at an annual rate of nearly 5 lakhs, with the growing incomes of the people. The recent exemption of incomes between Rs. 500 and Rs. 1,000 caused a loss of 30 lakhs in 1903–4, which, however, is now being gradually made up. It may be noted that the taxation of property by inheritance and succession duties cannot be largely resorted to in India, by reason of the Hindu joint family system which vests ownership in the family as a whole.

Provincial rates. More than three-quarters of the Provincial rates are derived from the general cess on land, which was imposed in most Provinces in its present form in 1870 and 1871, and was enhanced in Northern India, as part of the famine policy, in

1877 and 1878. Other items included under the head of 'Provincial rates' are cesses levied in some Provinces for the maintenance of rural police. The cesses are in general collected with the land revenue and rise and fall with it. Provincial rates yielded 254 lakhs in 1878–9, and 405 lakhs in 1902–3. The recent remission of famine cesses and those levied on account of village land revenue officials has caused a subsequent decrease of revenue amounting to about a crore.

Stamps.

The stamp revenue is derived from judicial or court-fee stamps, and non-judicial or revenue stamps. Judicial stamps are the more important source, yielding in 1902–3 69 per cent. of the total. The judicial stamp revenue may be regarded in the light of payment for service rendered by the costly judicial establishment rather than as a tax in the proper sense of the word. As in other countries, the law requires revenue stamps to be affixed to a variety of commercial and miscellaneous documents. Subject to occasional fluctuations, the proceeds from both classes of stamps have risen steadily, and only three years have seen a temporary fall in the total net revenue. Famine tends to lower the court-fee revenue by compelling self-denial in the pursuit of litigation, and to raise the revenue from non-judicial stamps by promoting the execution of documents for the purpose of raising money. In 1876–7 the net stamp revenue was 2·7 crores, and in 1902–3 5·0 crores, the average annual rise being about 8 lakhs. More than one-third of the total is realized in Bengal.

Registration.

Fees for the registration of instruments, principally deeds of mortgage, form a comparatively small item of revenue, yielding 21 lakhs in 1902–3[1]. The collections vary considerably from year to year, but with a constant upward tendency.

Statement of net ordinary expenditure. Civil Administration.

The third table at the end of the chapter gives details of the net ordinary expenditure of the state. The first heading includes the charges for the general civil administration, which have increased from about 14 crores in 1876–7 to 23 crores in 1902–3. The bulk of this increase represents normal progress, but three special causes of enhanced expenditure may be noticed before the details are examined. The fall in the rate of exchange has increased the rupee equivalent of the portion of the expenditure which is incurred in England. Another item of expenditure connected with exchange is the grant of exchange compensation allowance, first made in 1893, to compensate such officers of Government as are not permanently domiciled in India for the

[1] Registration is now, as a rule, obligatory in the case of deeds relating to immovable property.

loss caused to them by the fall in the value of the rupee on their remittances to England. In 1902–3 the payment of this compensation added about 28 lakhs to the expenditure on the general civil administration. The third special charge is that incurred for the administration of Upper Burma, against which must be set off the growing revenues of the Province. In the table the expenditure on civil administration is divided into the three heads of Land Revenue, Civil Departments, and Miscellaneous Civil Charges.

Land Revenue. The figures under Land Revenue include the bulk of the charges for District administration, and represent to a large extent departments of the public service with which the land revenue is only indirectly connected. A portion of the salaries of Collectors and Magistrates and other District officials is shown under this head, and the balance under the head Courts of Justice. The cost of this portion of the District administration has increased between 1876 and 1903 from 148 to 202 lakhs. Apart from the special causes already indicated, the creation of new Districts, general increase of work and establishments, and the rise in the emoluments of native officials have combined to swell the total. The substitution of native for European agency in a number of appointments has acted to some extent in the contrary direction.

Civil Departments. The $15\frac{1}{2}$ crores of expenditure on Civil Departments in 1902–3 were made up as follows:—General Administration 227 lakhs, Courts of Justice 295 lakhs, Jails 74 lakhs, Police 407 lakhs, Marine 51 lakhs, Education 168 lakhs, Medical 132 lakhs, Political 123 lakhs, Ecclesiastical 17 lakhs, and Minor Departments 61 lakhs. The charge for general administration represents the cost of the whole civil administration down to the grade of Commissioners of Divisions. It includes charges in England and in India on account of the Secretary of State, the Viceroy, the Governors, Lieutenant-Governors, Councils, &c. It increased between 1876–7 and 1894–5 by 55 lakhs; since then it has increased by about 18 lakhs only. A rise of 93 lakhs during the twenty-seven years under consideration for Courts of Justice represents increased litigation and the cost of many valuable reforms. The year 1902–3 compared with 1876–7 shows an increase of expenditure on jails by 21 lakhs. The jail population is larger and the administration has been greatly improved. Police charges, which are the heaviest item under Civil Departments, show a large increase, namely, 177 lakhs, since 1876–7. Nearly 80 lakhs of this increase occurred between 1885–6 and 1887–8, due to the policing of Upper Burma.

The general establishment has also been augmented, and the pay of officers and men increased in order to make them more efficient and trustworthy. Since 1902–3 expenditure on the police has been further developed, in accordance with the recommendations of the Police Commission of that year. Marine is a much smaller head of expenditure. It includes, among other items, charges on account of the Royal Indian Marine, the marine survey, and the dockyards. The large increase of expenditure under Education (83 lakhs) and under Medical (68 lakhs) since 1876–7 requires no explanation: it represents a boon to the people of the greatest magnitude. Political charges show a considerable increase during the period under discussion, a great part of which is due to affairs on the north-west frontier. The Minor Departments include a large number of items, such for instance as the Survey of India, the Botanical and Geological surveys, the Meteorological and other scientific departments, experimental cultivation, cinchona plantations, veterinary charges, emigration, inland labour transport, inspection of factories, statistics, departmental examinations, and explosives. The annual total varies, with a general upward tendency, representing a large amount of miscellaneous useful work.

Miscellaneous Civil Charges.

The third head in the table, 'Miscellaneous Civil Charges,' includes territorial and political pensions, stationery and printing, and the non-effective civil expenditure, namely, absentee allowances and charges on account of superannuation. The last item amounts to more than 70 per cent. of the whole. The total under 'territorial and political pensions' has diminished from 79 to 40 lakhs during the period under comparison by the gradual lapse of political pensions, while the charges for stationery and printing have increased from 43 to 86 lakhs with the growth of business. The special circumstances of the Indian Government make the absentee and superannuation charges a heavy item. Between 1876–7 and 1902–3, the former increased from 28 to 37 lakhs, and the latter from 144 to 392 lakhs. The growth of establishments, the fall in exchange, and a variety of other causes have contributed to this large increase.

Post Office, Telegraphs, and Mint.

We next come to the heads Post Office, Telegraphs, and Mint. An account of the first two departments is given in chapter viii of Volume III, and it is only necessary to point out here that the continually increasing services of the Post Office have been accompanied by the conversion of a net annual expenditure into a small net income. In 1876–7 Posts and Telegraphs together cost 28 lakhs net; in 1902–3 the

former showed a net profit of 12 lakhs and the latter a loss of 5 lakhs. Each year included in the table, with the exception of 1902–3, when there was considerable expenditure in connexion with the withdrawal of worn coins from circulation, shows a net revenue from the operations of the Mints, the amount of which fluctuates according to the extent and nature of the year's operations. The difference between the artificial and the intrinsic value of the rupee being now considerable, large apparent profits have been made of recent years from the coinage of new rupees; but such receipts do not affect the surplus of the year, as the net gain is transferred to the Gold Reserve Fund in accordance with the currency policy described in chapter xvi, and is therefore not included in the table[1]. Transactions which do affect the surplus are the coinage of copper pieces and of dollars for various colonies.

Railways. History of financial policy in respect to railway construction. (1) By guaranteed companies.

Railway construction began in India about the year 1850 and was, for a number of years, carried out through the agency of joint stock companies, with an English domicile and a sterling capital, under contract with the state. The companies were given a guarantee of 5 per cent. on their capital outlay, with half the surplus profits in addition. No capital expenditure beyond that involved by the free grant of land was entailed on the state, but general revenues had to meet the amount by which the net receipts fell short of the guaranteed interest. The eight railway lines which were constructed on these terms have played an important part in the development of the country. The guarantee system was of great utility, inasmuch as it succeeded in attracting British capital, without which these great works could hardly at that time have been constructed; but the terms of the contracts were in some respects unsatisfactory and for many years imposed a considerable burden on the Indian revenues. All the old guaranteed railways except one have now been purchased by the Government under their contracts.

(2) By direct state agency.

In 1867–8 the Government began to borrow money for irrigation works, and in 1870 steps were taken to extend this system to the further development of railways by the direct agency of the state. The extent of the operation was controlled and limited by a consideration of the net annual burden thrown on the revenues. For several years the net charge on account of guaranteed railway interest had varied between 1½ and 1¾ millions sterling, but was now diminishing with the growth of

[1] These profits formerly figured both in the revenue of the year and in the expenditure chargeable to revenue: they are now, since 1904–5, directly adjusted under the head 'Deposits and Advances.'

traffic. The forecasts of expenditure on new railways and irrigation works were to be so adjusted that additional charges should be met by additional receipts from the guaranteed railways and new projects, and no increased charge was to be thrown on the revenues. A forecast made on these lines in 1875 provided for an annual capital outlay for five years of 4 crores, and it was estimated that the net charge on the revenues during this period would diminish from about 2½ to 2 crores. The general expenditure on construction met from revenues was styled 'ordinary,' and all outlay from borrowed funds 'extraordinary.' The 'extraordinary' works were not all expected to furnish a net profit which would cover the interest charge on the capital outlay: they included every sort of work which it was decided, for any reason, to construct from borrowed funds. The fall in the gold value of silver broke down the system. Apart from the general peril of the financial position, the sterling debt added greatly to the loss by exchange, and it was at one time contemplated that all borrowing for public works should be stopped. The question was referred in 1879 to a Committee of the House of Commons, which advised that the system of regulating the amount of borrowing by the dead weight of interest not covered by receipts should cease, and that the total amount to be borrowed in any year should be limited to that which could be raised in India without unduly pressing the market. This was estimated to be 2½ crores. These recommendations were supplemented by orders of the Secretary of State, limiting construction from borrowed funds to such works as might be expected to yield receipts sufficient to cover the interest on the capital outlay within a reasonable number of years. Railways and irrigation projects which did not fulfil this condition, but were required as a protection against famine, were to be constructed from revenue, including under this head a portion of the famine insurance grant provided under the new famine policy (see page 165). The two classes of works were styled 'productive' and 'protective,' and the distinction between 'extraordinary' and 'ordinary' works was abolished.

(3) By assisted companies.

If, however, capital outlay had been strictly confined to what the Government could borrow in India or spare from revenue, the work of construction would have progressed slowly and economic progress would have sustained a severe check. It was, therefore, now decided again to evoke the aid of private capital, which, it was hoped, could be obtained on better terms than in the days of the old guaranteed companies. From that

time onwards a number of companies have assisted in the development of Indian railways. The terms of their contracts with the state exhibit a great variety of conditions, but they may be roughly divided into three classes. (1) There are the later guaranteed companies which, like the old companies, have an English domicile and a sterling capital. The rate of guaranteed interest in no case exceeds 4 per cent., and the lines worked by the companies are the property of Government. The share of the surplus profits payable to these companies is also smaller than under the old conditions. (2) Within recent years companies of a new class, with an Indian domicile and a rupee capital, have been formed for the construction of branch or feeder lines to existing railways. The assistance given to these branch-line companies takes the form either of a guarantee up to 3 per cent. with a share of surplus profits, or a rebate from the traffic brought to the parent line sufficient to bring up the total receipts of the feeder to a certain percentage on the capital cost. (3) To the third category belong the railways over the transactions of which the Government exercises no financial control. In some cases these receive direct assistance in the shape of a subsidy so as to bring up the gross receipts of the railway to a certain figure; in others a payment is made so as to secure a return to the company of a certain percentage on the capital cost; and in others again the only assistance afforded is a free gift of the land required for the construction of the line.

Programme of railway expenditure since 1885.

The $2\frac{1}{2}$ crores limit on Government borrowings for 'productive' works was maintained for several years. In 1883, better times having arrived, the Government of India proposed a more ambitious programme, and the whole question was again considered by a Parliamentary Committee. Acting on the recommendations of this Committee, the Government abolished the distinction between 'productive' and 'protective' works. Railways were to be made as required, but were, as a rule, to have a good prospect of repaying their interest charge. The Committee advised that the limit of borrowing might be enhanced, and the Secretary of State raised it to $3\frac{1}{2}$ crores annually. Funds for the construction of irrigation works and railways needed for famine purposes continued to be supplied, up to a limit of three-quarters of a crore, from the famine insurance grant. A programme was framed on these lines in 1885, but the ordinary work of railway extension was hampered by the need (after the Panjdeh incident) of constructing strategic railways on the north-west frontier at an estimated cost of more than 5 crores. In August, 1889, the 1885 programme having been

nearly exhausted, a fresh three years' forecast was made. It was of a moderate character and involved an annual outlay of $3\frac{1}{2}$ crores, which it was anticipated would not materially increase the Home charges or the burden of expenditure to be met from revenue. In 1890 the limit of capital expenditure on railways and irrigation works was raised to $3\frac{1}{2}$ crores *plus* the whole available balance of the famine insurance grant; and in 1892 the Government of India sanctioned an additional annual outlay of $\frac{1}{2}$ crore to enable companies to undertake new lines and extensions. In 1895–6 the question of how best to provide funds for a wider development was considered, and a three years' programme, involving a total cost of $29\frac{2}{3}$ crores, was sanctioned. As much money as could conveniently be borrowed was to be raised in India, and the rest in England by the Secretary of State or by companies acting under agreement with him. This programme, while precluding independent borrowing by guaranteed companies, did not include the capital expenditure of those companies whose relations with the Government do not involve a direct guarantee. The programme had however to be curtailed in consequence of famine and frontier wars. It was followed by another three years' forecast, involving an expenditure of $22\frac{1}{3}$ crores, in the years 1899–1900 to 1901–2. This programme was also to some extent modified by famine, and the growing need for capital expenditure on open lines has restricted the outlay on new works.

Present position of railway finance. The present position of railway finance may be illustrated by the budget estimate of 1906–7. The total estimated capital expenditure (apart from famine protective lines) for which the Government of India undertakes any financial responsibility or gives any direct guarantee is:—

On open lines	8·9 crores.
On lines under construction	5·4 ,,
On new lines	0·7 ,,
Total	15·0 crores.

This total is provided from the following sources:—

1. From Imperial funds, either by state agency or by the agency of working companies	12·0 crores.
2. From the capital accounts of the old guaranteed railway companies	0·3 ,,
3. From the capital accounts of other railway companies, including branch-line companies in the receipt of a firm guarantee	2·7 ,,

It will be noticed that more than half the capital expenditure

was required for open lines. The present condition of many of the Indian railways, comparatively young lines with a rapidly increasing traffic, entails a large and growing expenditure on rolling stock, stations and goods sheds, additional sidings, signalling apparatus, and sometimes duplication of the permanent way. These needs must be met, and they already absorb a large part of the capital resources, which, under existing conditions, are strictly limited in amount. Except in specially prosperous years, the sums which can be spared from revenue are not great, and there are, moreover, obvious objections to large provision from current revenues towards capital expenditure on works of permanent improvement. The bulk of the expenditure must, therefore, be met by borrowing in India or in England. The amount of capital available in India for investment in Government securities, which afford a lower rate of profit than can be obtained by prudent commercial investment, is not large, and even in London the number of investors to whom Indian securities are familiar is relatively small. Thus after many vicissitudes the problem of capital expenditure for the construction of new lines of railway is still a difficult one, which always requires careful consideration from year to year.

Net result of railway policy.

As the net result of about fifty years' construction policy, India had been provided at the end of the year 1904–5 with 27,728 miles of railway, of which more than 20,000 belong to the state. During the same period the capital outlay of the Government on railways was 202 crores, of which 59 crores was spent on the purchase of companies' lines.

Railway Revenue Account.

It remains to show how the acquisition of this great property has affected the revenues. The figures in the fourth table appended to this chapter are shown under the headings of old guaranteed railways, state railways, assisted railways, and miscellaneous. They do not require very detailed explanation. The liability of the state with respect to the first class of railways is for the 5 per cent. guaranteed interest, against which must be set off the net receipts less the companies' share of surplus profits and other payments. The resulting net charge fluctuates. The burden of the Government guarantee, which is paid in sterling, has been greatly enhanced by the fall in exchange. As the guaranteed railways are purchased, their accounts are transferred to the heading of state railways, and the remaining figures represent, therefore, a different set of circumstances. Under state railways, the gross receipts and working expenses, and with them the net income, show a large rise in each quinquennial period. On the other side must be

reckoned the growing charge for interest on capital; but even allowing for this, state railways, which for accounts purpose include the lines belonging to Government worked by the new guaranteed railway companies, have for the last few years yielded a considerable profit. The net charges or receipts on account of the various classes of assisted railways and the miscellaneous expenditure vary considerably from year to year, but their totals are comparatively small.

Taking the whole of the railway revenue account together, the net result is as follows:—

1876-7 to 1880-1	average net loss	1,20	lakhs.
1881-2 to 1885-6	"	74	"
1886-7 to 1890-1	"	1,62	"
1891-2 to 1895-6	"	1,53	"
1896-7 to 1898-9	"	1,68	"
1899-1900 to 1904-5	" gain	1,11	"

The rise in net expenditure from 1886-7 to 1890-1 may, to a large extent, be attributed to the fall in the rate of exchange and to the construction of strategic railways. The improvement of the last five years is noteworthy and continued in 1905-6, the net gain for that year being approximately estimated at 303 lakhs. It may, therefore, be fairly concluded that railways will in the future no longer prove a burden on the resources of the state, but an asset from which to meet a portion of the national expenditure.

Irrigation. Financially considered, irrigation works are classed as 'major' or 'minor.' The former class includes all works which have been undertaken from loan funds, and also those famine protective works which are constructed out of the annual grant from revenue for famine relief and insurance. The cost of constructing 'minor' works, as well as the sums annually required for their working and maintenance, are met from the ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept. The practice of constructing important irrigation works from borrowed funds began in the year 1867-8 under the viceroyalty of Lord Lawrence. The total capital outlay on irrigation, including that met from current revenues (45 crores to the end of 1904-5), though in itself large, has been much less than the capital expenditure on railways. The provision of funds for the construction of irrigation works forms part of the larger problem already described in connexion with railways. It has been for many years the practice to allot a fixed sum annually for capital

expenditure on irrigation projects. In 1893–4 the amount was raised from 55 to 75 lakhs, in view of the excellent financial results that were being obtained. The allotment remained at 75 lakhs (except in years of financial pressure) until 1899–1900, when it was raised to 85 lakhs; since then it has been raised, first to 100 and then to 125 lakhs. Having regard to the very remunerative character of the greater part of the outlay, and to the immense value in times of scarcity of the food supplies which can be relied on with confidence from the irrigated area, the Government of India has resolved to spare no efforts to make ample provision for irrigation works, and will be materially assisted by the Report of a Commission which investigated the subject in 1902–3. The annual profit to the state is the excess, over the interest on capital outlay, of the direct receipts and the share of the land revenue attributable to the works, less the working expenses. Each quinquennial period since 1876 shows a net gain, except that between 1886–7 and 1890–1, during which a great loss of revenue resulted from a breach in an aqueduct near the head of the Lower Ganges Canal. During the years 1901–4 the average net receipts amounted to 1·3 crores, an enormous improvement over the results of any previous period. The net expenditure on 'Minor Works and Navigation' averaged 1 crore in the same period.

Civil Works.

'Civil Works,' which mean mainly roads and buildings, are constructed entirely from revenue. The outlay in any year depends to a large extent on what Provincial Governments and District and sub-district boards can afford to spend, for in times of stress this can be reduced more easily than other forms of expenditure. Taking again periods of five years, the average expenditure shows a considerable cumulative increase which, owing largely to famine, was not so great as usual during the five years 1896–7 to 1900–1. The average during that period, 4 crores, compares with 2·6 crores from 1876–7 to 1880–1. In the four years 1901–4 the average outlay was 5·5 crores.

The public debt.

The next heading, 'Interest,' needs for its elucidation an examination of the national debt of India (see Table I). The subject is closely connected with public works, since the greater part of the debt has been incurred for capital outlay on railways and irrigation. Taking the then value of the rupee at 2*s.*, the total debt of the Government of India was equivalent in 1840 to 31 millions, and in 1860 to 98 million pounds sterling. The whole of this sum was borrowed for unproductive expenditure, and the interest, which amounted to over 4 millions in 1860, was a dead weight on the revenues. In 1876 the sterling debt

which have not been attempted in other countries without the assistance of some form of loan. In the third table at the end of this chapter the net military expenditure is shown under the heads of effective and non-effective charges and military works. We have already seen that great reductions in the military expenditure were effected in the early sixties. From that time until the year 1885 there was little increase in the effective charges. The Government of India strove after economy, and in consequence of the recommendations made by a Commission appointed in 1879 savings were effected which amounted to more than 1 crore. In 1885 the advance of Russia and the conquest of Upper Burma led to an increase in the forces and considerable expenditure in various directions. In 1884–5 the net effective expenditure amounted to 12·3 crores, and in 1886–7 to 15·3 crores[1]. In 1890–1 the total net amount was 16 crores, and in the following year it rose to 17½ crores. The rise on this occasion was due to the introduction of various modern improvements in armament, equipment, and organization. From 1891–2 to the present time the promotion of these and similar improvements, which are essential to the efficiency of the army, has continued. Other causes of increased expenditure are the raising of the pay of the native soldiers in 1895, and of the British soldiers in 1898 and again in 1902. The net effective expenditure (excluding military works) had risen to 18½ crores in 1896–7 and reached 24 crores in 1904–5. In 1899–1900 and subsequent years large savings were effected by the absence of troops in South Africa and China, whose cost while so employed fell on the Home Government; but against these savings must be taken expenditure on transport, equipment, and reorganization, which the experience of the South African War has shown to be necessary. Considerable sums have recently been spent on the establishment of cordite, gun-carriage, and small-arms factories, which will cheapen the cost of military material and afford mechanical training and employment to natives of India; and for the redistribution and reorganization of the army, including the supply of new guns and rifles. The net expenditure on non-effective charges rose from 2½ crores in 1876–7 to 5 crores in 1894–5, and since then has fallen to 4½ crores in 1904–5. Its course has been influenced by the rate of exchange, and by various complications and changes in system. The introduction of

[1] In these and many subsequent years the fall in exchange added considerably to the total effective charges, because the pay of British troops is fixed at a sterling rate.

short service in England has tended to reduce the pension charges. The expenditure on military works does not vary greatly, and in recent years has averaged 1½ crores.

Taking the whole net expenditure on the army and military works, the following are the average figures for five quinquennial periods and for the years 1902–3 to 1904–5:—

1876–7 to 1880–1	17·4 crores
1881–2 to 1885–6	17·4 ,,
1886–7 to 1890–1	20·3 ,,
1891–2 to 1895–6	23·5 ,,
1896–7 to 1900–1	23·2 ,,
1902–3 to 1904–5	27·6 ,,

These figures are exclusive of special defence works and military operations, which will be noticed in dealing with extraordinary expenditure.

The last item in the table of net expenditure bears the title 'Provincial and Local surplus or deficit.' This entry has reference to the working of the system of Provincial finance and will be explained later on.

Some account has now been given of the various heads making up the net receipts and the net ordinary expenditure of the Government of India. It remains to deal with the extraordinary charges which are met from the excess of ordinary revenues over ordinary outlay. They have not been included in the tables at the end of this chapter other than Table I, since the extraordinary expenditure of any particular year may give no indication of the real obligations of the Government under this head. The nature and amount of extraordinary charges can be best illustrated by the total figures for a definite period. Taking the period 1876–7 to 1902–3, the extraordinary expenditure of the Government of India may be classed as follows:— Extraordinary charges.

Military operations	22·2 crores.
Special defences	4·5 ,,
Famine relief	26·3 ,,
Construction of railways from revenue	7·3 ,,
Construction of railways and irrigation works from the famine insurance grant	9·8 ,,

Arrangements cannot be made beforehand to meet war expenditure, and when it has to be incurred it must be defrayed from revenues or balances, or by borrowing. The existence of wild tribes on the frontier involves the Indian Government in frequent minor expeditions, but the Afghān War is the only Military operations.

great campaign in which India has been engaged during the period under review. The other large-scale operations have been the Upper Burma expedition, the Chitrāl campaign of 1895–6, and the Tīrāh and other frontier campaigns of 1897–9. Expenditure on special defences began in 1886–7 in accordance with a scheme, estimated to cost 5 crores in all, for improving the defences of the harbours and the frontier. The greater part of the outlay was incurred before 1896–7.

Famine. India suffered from three great famines during the last quarter of the nineteenth century. The period opened with the famine of 1876–8 in Southern India, and closed with the widespread calamities of 1896–7 and 1899–1900. During the intervening eighteen years, although scarcity prevailed from time to time in some part or other of the empire, no serious famine occurred. The total direct expenditure on famine relief since 1876 amounts to an average of 1 crore a year, and the actual cost to the state has been greatly enhanced by loss of revenue and indirect expenditure. Prior to 1878 no special measures were taken to meet the financial obligations imposed by the periodic recurrence of famine. The catastrophe in Southern India convinced Lord Lytton's Government that such a state of things was unsound, and that efforts must be made to treat the cost of famine as an ordinary charge on the state. The result was the provision of an annual sum of 1½ crores of rupees for 'famine insurance,' as described on pages 165, 166. The manner in which this additional revenue is utilized has varied from time to time. The actual relief of famine in years of scarcity has always been the first charge on the grant. At first the balance was devoted to the construction of 'productive' public works the cost of which would otherwise require to be met by loan. It was argued that, if the borrowing saved in this way equalled in the long run the borrowing incurred on account of famine, the purpose of insurance would be effected. In 1881 'protective' public works which, though not likely to be financially successful, were calculated to mitigate or prevent famine in the areas served by them, were made the second charge on the grant, but with a maximum limitation of the proportion to be spent on these objects to three-quarters of a crore annually, the balance being spent as heretofore. In 1890 this limitation was abolished, and for the next ten years a much larger proportion was spent on so-called 'protective' works. The actual distinction between 'protective' and 'productive' works became obscured, and railways which formed part of the general system and were not constructed specially for famine purposes were assisted from the

'protective' works portion of the famine grant. At the end of 1899 a stop was put to this practice. The expenditure on 'protective' works was again limited to three-quarters of a crore, and only railways and irrigation projects actually undertaken for famine purposes were allowed to be included in the category. The balance (apart from actual famine expenditure) is devoted to the avoidance of debt which must otherwise be incurred for the construction of railways. The cost of investigating and preparing irrigation and railway projects which may properly be classed as 'protective' is also deemed a legitimate charge against the famine grant.

The position created by the financial arrangements of Lord Lytton's Government has thus been materially changed by later incidents and difficulties, but endeavour has always been made to maintain the desired surplus of ordinary revenue over ordinary expenditure. On the occasions when this was not found possible the famine insurance grant has been suspended in whole or in part. This happened in 1879 to 1881, and again in 1886–7 to 1891–2. From 1894–5 to 1896–7 (the closing years of a considerable period not marked by any great famine) it was deemed sufficient to provide one crore; but in 1898–9 (after the first of the recent famines) the grant was again raised to $1\frac{1}{2}$ crores, at which amount it remains in years when that sum is not exceeded by the cost of famine relief. During the twenty-five years ending with 1902–3, 18·8 crores have been spent from the grant on famine relief, 14 crores have been applied to the construction of 'protective' works (including the net interest charge on two 'protective' railways), $3\frac{3}{4}$ crores have been applied to the construction of works which could not otherwise have been carried out without incurring debt, and 2 crores to the actual reduction of debt. The whole of the $1\frac{1}{2}$ crores of the famine insurance grant is shown on the expenditure side of the public accounts under one head, divided according to the different purposes to which the grant is put. This plan has not been followed in the tables at the end of this chapter; but the portion of the grant devoted to actual famine relief, and to the capital cost of the construction of 'protective' works, has been included in the extraordinary expenditure defrayed from revenue of which the totals have been given above.

Railway construction from Provincial and local revenues.

The only other item included under extraordinary expenditure is the capital outlay on railway construction from Provincial and local revenues. Of recent years the expenditure under this head has been very small, and almost the whole contribution

from revenue towards the construction of railways is now derived from Imperial revenues.

Provincial finance. General features of the system.

The financial transactions of the Government of India having now been presented as a whole, it remains to describe certain special features of the system. The points to be dealt with are the system of Provincial finance, the Home charges, and the regulation of 'ways and means.'

The public accounts include the whole receipts and expenditure whether in India or in England. They are combined from three sets of accounts—the accounts of the Home Government, the accounts of the Supreme Government in India, and the accounts of the eight major Local Governments. In the latter are also included the accounts of the District and sub-district boards; but the exclusion of these from the Imperial accounts is now under consideration. We have already seen that the whole administration of the finances in India was vested at one time in the Central Government, and that a policy of decentralization was initiated in 1870 and developed in 1877–82. The arrangements introduced in 1877 have been modified in some particulars, but, in the main, are still in force. The objects aimed at were to give the Local Governments a strong inducement to develop their revenues and practise economy in their expenditure, to obviate the need for interference on the part of the Supreme Government in the details of Provincial administration, and at the same time to maintain the unity of the finances in such a manner that all parts of the administration should receive a due share of growing revenues required to meet growing needs, and should bear in due proportion the burden of financial difficulties which must be encountered from time to time. This problem has been solved by the Government of India delegating to the Local Governments the control of the expenditure on the ordinary Provincial services, together with the whole, or a proportion, of certain heads of revenue sufficient to meet these charges. The heads of revenue selected are such as are most susceptible of improvement under careful Provincial management. Subject to occasional exceptions, the distribution of the more important sources of revenue is as follows: wholly Imperial—salt, customs, opium, and tributes; divided—land revenue, stamps, excise, assessed taxes, forests, and registration; wholly Provincial—the local taxes included under the head 'Provincial rates.' While expenditure on the ordinary Provincial services has been delegated to the Local Governments, the Supreme Government keeps in its own hands the bulk of the charges connected with the public debt, the army,

the Indian marine, the central administration, and foreign affairs. The Home charges are also Imperial. As regards the commercial departments, transactions connected with the post office, telegraphs, mint, and railways are wholly or mainly Imperial, while irrigation is divided between the two accounts. The Imperial expenditure amounts to more than three times as much as the expenditure of all the Provinces put together. The financial administration of the Local Governments is subject to the general supervision of the Supreme Government, and to conditions concerning the imposition of new taxation, the creation of appointments, the alteration of scales of salaries, the maintenance of great lines of communications, and so on. The Local Governments are also required, ordinarily, to keep a prescribed minimum balance with which to meet emergent expenditure. In other respects they have a free hand in administering their share of the revenue. While this system in some ways resembles the systems of federal finance which prevail in the German Empire and in the United States, it differs from them in a very vital respect. In Germany and America the constituent states have voluntarily surrendered certain attributes of their fiscal and other sovereignty to the Central Government, but retain complete independence, outside the sphere of federal finance, in levying and spending their revenues. In India the Local Governments are merely delegates of the Supreme Government, and exercise financial and other functions subject to its approval and control. They have moreover no borrowing powers, and when—as has been the case in Bombay of recent years under the stress of plague and famine—they exceed their resources, the balance is met by the Government of India.

Periodical revision of Provincial settlements.

The arrangements with the Local Governments were formerly subject to revision once in five years. During each quinquennial period the Province enjoyed the full advantage of any improvement in its share of the revenues due to natural growth and good administration. When the five years' period was drawing to a close the Supreme Government would take fresh stock of the financial position. An estimate was made of the existing and future needs of the Province as regards revenue and expenditure, and the settlement was revised accordingly. In making this estimate the Government of India did not bind itself to take into account the whole of the expenditure which the Local Government had been able to defray from its growing revenues or balances. Some forms of expenditure, such as the outlay on public works and the contributions made for local

purposes, are to some extent voluntary in character; and it was possible, without interfering with the development of the Provincial finances, to resume a portion of the funds devoted to such purposes. The sums thus gained might be utilized to improve the position of less prosperous Provinces, or might be needed for the Imperial obligations which form by far the greater portion of the total expenditure. In this manner a certain elasticity was secured without sacrificing the objects for which the system of Provincial finance was introduced. The system had, however, the drawback of provoking periodical controversies between the Supreme and the Local Governments, and of stimulating hasty, and therefore possibly wasteful, expenditure by the latter during the closing years of a settlement. Accordingly it has now been determined to assign to the Local Governments more permanent shares in the divisible revenues raised in their territories. Settlements made on this basis were concluded with the Governments of Madras, Bengal, the United Provinces, and Assam, with effect from 1904-5; with Bombay and the Punjab, with effect from 1905-6; and with the Central Provinces (including Berār), with effect from 1906-7. The recent division of Bengal further necessitated fresh settlements with the new Provinces thereby constituted, which came into force from 1906-7. The settlement with Eastern Bengal and Assam is, however, subject to revision after a few years, when the normal standards of revenue and expenditure for the Province can be better ascertained. The Provinces above mentioned have received with the new settlements initial grants, amounting in the aggregate to 3 crores. Burma is now the only Province to which the new settlement principles have not been applied[1].

So long as the Provincial settlements remained temporary, their periodical revision was necessarily influenced by the financial exigencies of the time. When the demands on the Imperial Government increased out of proportion to its normal resources, the Provincial assignments had perforce to be somewhat diminished; when Imperial finance was prosperous, they were as a whole increased.

Special contributions by the Prov-

Since the Provincial system came into being, Indian finance has been exposed to four special dangers—war, fall in opium receipts, fall in exchange, and famine. In the first three cases

[1] For further details see paragraphs 206-17 of the Government of India *Financial Statement* for 1904-5, paragraphs 203-5 of the *Statement* for 1905-6, and paragraphs 214-22 of the *Statement* for 1906-7.

the risk falls entirely on the Imperial Government, which has therefore, to some extent, suffered from the increased stability given to Provincial finance. In times of emergency the Local Governments may be, and sometimes have been, called upon to make special contributions for the general purposes of the empire, apart from any resumptions made at the end of the quinquennial periods. Thus during the Afghān War they contributed 67 lakhs, afterwards restored; in 1886–7, 40 lakhs, towards the deficit caused by the Burmese War, military preparation on the north-western frontier, and the fall in exchange; and in 1894–5, the time of the exchange crisis, 40 lakhs, restored in the following year. The cost of famine and plague falls in the first instance on Provincial and local resources, and the Imperial Government steps in only when these are exhausted. This must, however, inevitably happen in the case of a severe famine. During the currency of the 1897–8 settlements the system of Provincial finance was sorely tried by the expenditure and loss of revenue occasioned by famine and plague. Accordingly, besides bearing by far the greater portion of the famine expenditure, Imperial revenues in each year made large grants to the Local Governments, the total of which amounted up to the end of 1903–4 to nearly 13 crores.

inces to the Supreme Government.

Provincial and Local surplus or deficit.

The meaning of the entry 'Provincial and Local surplus or deficit' in Table III will now be plain. The accounts are designed to show both the aggregate transactions of the Government and the position of the Imperial finances. The inclusion of the Provincial figures, which include the transactions of the District and sub-district boards, has this effect, that a Provincial expenditure smaller or greater than the Provincial receipts makes an addition to or deduction from the balance at the end of the year which does not affect the Imperial Government, since the Imperial and Provincial accounts are independent for the term of the settlement. It is therefore necessary to make an entry which will cancel the Provincial surplus or deficit. Take, for instance, the year 1901–2. Including grants from the Government of India, the Local Governments received in the aggregate 161 lakhs more than they spent. This sum is not available for Imperial purposes; and an adjusting entry of 161 lakhs is therefore made on the expenditure side, which reduces the Imperial balances by this amount, and leaves the account in the position in which it would have stood had the Provincial transactions been altogether excluded from it.

The Home charges.

The Home receipts and expenditure of the Government of

India are included in the general accounts under the appropriate heads, but require a brief separate examination. The net expenditure in England, chargeable on the revenues of the year, amounted in 1902–3 to about £17,700,000, distributed as follows: railway revenue account, £6,500,000; interest and management of debt (excluding interest charged in the railway account), £2,800,000; stores, £1,800,000; army effective charges, £1,300,000; civil administration, £400,000; marine, £200,000; and non-effective charges, consisting mainly of the furlough and pension allowances of civil and military officers, £4,700,000. These Home charges have sometimes been erroneously described as a tribute which India pays to England in consequence of her subordination to that country. A glance at the above figures will show that nearly 11 out of the total $17\frac{3}{4}$ million pounds consist of payments on account of capital and materials supplied by England, and belong to a commercial rather than an administrative class of transactions. Of the balance, $4\frac{1}{2}$ millions represent furlough and pension payments, and are a necessary concomitant of the British administration to which India owes her material prosperity. The Home charges have grown by $4\frac{3}{4}$ million pounds in the past twenty-seven years, the main heads of increase being railways, interest, and furlough and pension allowances. The apportionment between England and India of expenditure for matters in which both are interested, and especially of charges in connexion with the army, has formed the subject of frequent discussion between the Indian and Home Governments. The subject was thoroughly investigated by Lord Welby's Commission in 1895–1900 and a number of moot points were then settled, resulting in a net annual relief to the Indian exchequer of about a quarter of a million sterling.

Method of meeting the Home expenditure. The loss by exchange.

The Home expenditure is defrayed by the sale of Council bills (or telegraphic transfers) by the Secretary of State. Since the exports of India exceed her imports, European importers must remit to India the net value of this excess. For this purpose they buy bills on India, offered by the Secretary of State; the latter pays the Home charges with the proceeds, and the buyers send the bills to India, where they are cashed by the Indian Government. As regards the Indian exchequer the result is therefore the same as if the amount had been directly remitted to the India Office. Before the Indian mints were closed to the free coinage of silver, the price which the Secretary of State obtained for his bills was determined by the gold value of silver bullion. If bills were offered at a rate less

favourable than the market price of silver, importers could adopt the alternative of purchasing bullion and transmitting it to India for coinage. The actual form of the transactions was somewhat more complicated, but the essence was substantially as above. Until 1871–2 the gold value of the rupee had, except in one year, always exceeded 1*s.* 11*d.* In 1872–3 it fell to a little over 1*s.* 10$\frac{3}{4}$*d.*; and thenceforward, owing to the increasing production of silver, and its reduced employment for monetary purposes due to the currency policy of Germany and other countries, it fluctuated, with a constant downward tendency, until in 1894–5 it reached the lowest point of a little under 1*s.* 1*d.* As the price of silver fell the Secretary of State obtained worse and worse terms for his bills, or in other words the Government of India had to pay a continually increasing number of rupees to meet the sterling expenditure in England. Thus arose the principal, though not the only, cause of the loss by exchange. The changes in the currency system described in chapter xvi have had the effect of establishing a value for the rupee which varies within narrow limits on either side of 1*s.* 4*d.*, and a fruitful cause of financial embarrassment and instability has thus been removed. In estimating the loss which the Government of India suffered, the result will depend on the period with which comparison is made. It would be unreasonable to take the period when the rupee was at or above par, for that was the time of the Mutiny, when practically no remittances were made to England and the country subsisted by borrowing. Again, before 1872–3 the amount of the Home remittances was much smaller than it became after that year. This was to a large extent due to the fact that the Secretary of State was kept in funds by the capital deposits of the guaranteed railway companies, which had of course to be refunded at a later date when the companies required the money for use. The year 1872–3 is therefore a good starting-point, because it marks the beginning both of the rapid fall in exchange and of the period of normal remittances. We may compare the price which the Government of India paid for its remittances in the year of lowest exchange, 1894–5, and the price it would have paid for remitting the same sum had the rate of exchange been that which prevailed in 1872–3. The sterling value of the bills paid in 1894–5 was £15,770,533. The rupee equivalent actually paid by the Government of India was 28·9 crores, while at the rate prevailing in 1872–3 it would have amounted to only 16·6 crores. The difference is thus 12·3 crores, which is more than half the amount of the net land revenue.

Secretary of State's drawings.

The actual amount drawn by the Secretary of State on India by means of Council bills in any year is not determined solely by the net expenditure incurred in England chargeable to the revenues. It is settled after consideration of a number of more or less complicated transactions which regulate the adjustment of resources to total expenditure of all kinds. Indian, like British, finance has, ever since Mr. Wilson's reforms of 1860, been regulated by the budget system, and the financial year ends on March 31. In the latter part of March is published the Annual Financial Statement, which includes the budget estimates of the coming year, the revised estimates of the current year, and the 'actuals,' or closed accounts, of the previous year.

The budget summary is shown in two main divisions: the first includes only revenue and expenditure charged to revenue, and is balanced by a surplus or deficit on revenue account. This surplus or deficit, together with the amount of the opening treasury balances in India and in England, is carried forward into the statement under the second main division, in which are also shown all expenditure on capital account, receipts by way of loans, and other transactions, under the heads of debts, deposits, advances, and Secretary of State's drafts, which are outside revenue accounts. The general budget is balanced by adjustment of the separate surpluses or deficits of the Provincial Governments, and by the entry of the amounts of the closing treasury balances in India and England.

It will be noted that the second division is of the nature of a capital account in contradistinction to the first division, which is purely a statement of revenue and of administrative expenditure charged to revenue. The excess of total expenditure over revenue shown in the second division, which is generally due to capital outlay on railway and irrigation works, is met by borrowing in India and England, frequently supplemented by drawing on treasury balances.

The sum to be drawn by the Secretary of State to meet the requirements of the Government of India for expenditure in England is determined by deducting from the total of such expenditure the borrowings in sterling in London. The total amount of bills which can be sold by him without undue depreciation of exchange depends on the demand for remittances to India in connexion with the export trade, and in recent years this has been largely in excess of the budgeted requirements of the Secretary of State for payments in sterling in England. Their satisfaction depends primarily on the resources of the

treasuries in India; but if these should be unequal to meeting the demands, bills can be drawn against the Currency Reserve, the proceeds being remitted to India in gold, or utilized in the purchase of silver in order to recoup the Currency Reserve balance[1]. On the other hand, should a failure in the export trade, due to famine or other reasons, cause the demand for trade remittances to fall short of the total necessary to meet Government expenditure in sterling, the Secretary of State may make good the deficit by a corresponding increase in the amount of his sterling borrowings. In recent years the surplus proceeds of the Secretary of State's drawings, as compared with his actual revenue requirements, have been applied partly to the strengthening of the cash balances which he holds in England, partly to the purchase of silver for coinage, and partly to defraying capital outlay in connexion with railway construction.

'Ways and means.'

A special feature of Indian finance arises through the fact that the revenue receipts vary considerably at different seasons of the year. During the months of January to April they are at their highest and the cash balances in India increase. During the following months they fall short of the demands on the treasuries; balances run down and are ordinarily at their lowest point in December. Experience shows that it is not safe to allow the balances to fall below 10 crores during this month, and this fact must be taken into consideration in deciding the amount announced in the annual financial statement which the Government proposes to borrow in England, or in India, or in both countries. The consideration of the monthly demands on treasury balances in India is the basis of the resource estimate, technically called 'ways and means'; and the result of this estimate, taken in connexion with the condition of the Indian money market, provides the data on which is fixed the amount of the loan to be raised in India in rupees.

It may be pointed out that, while most European Governments can count on meeting temporary treasury requirements by the issue of treasury bills through Government banks, such resources cannot be relied upon in India; and consequently the Indian Treasury is obliged to act as its own banker, estimating its monthly requirements with special foresight and prudence, and watching the situation with the closest attention throughout the year.

This sketch may be concluded with a bird's-eye view of the period which has been taken to illustrate the progress and condition of the Indian finances. During this period (1876–

[1] In regard to currency transactions see chap. XVI.

Conclusion. General review of the financial position.

1903) the total net revenue increased from about 39 to 61 crores, of which about $2\frac{3}{4}$ crores may be attributed to fresh taxation: namely, the income-tax and the addition to the Provincial rates by famine cesses which have, as already explained, now been repealed. A development of the commercial services—railways, irrigation, post office, and telegraphs—of enormous benefit to the country, has been accompanied by the conversion of a burden of 2 crores into a profit of 70 lakhs. The net charge on account of the funded and unfunded debt has been reduced from $4\frac{1}{2}$ to $1\frac{1}{2}$ crores. The net expenditure on the ordinary civil administration has risen from nearly 14 to 23 crores, the principal increase being under the heads of police, courts of justice, medical services, education, civil works, and pensions. The cost of the army (including military works) has risen from $16\frac{2}{3}$ to 26 crores. The total surplus of ordinary revenue over ordinary expenditure during this period amounts to about 91 crores. From this surplus 22 crores have been spent on major military operations, 4·5 crores on special defences, 26 crores on famine relief, and $16\frac{1}{2}$ crores on the construction of railways and major irrigation works. In spite of the great loss caused by the fall in exchange the record is a satisfactory one, and few countries could show a better. Great difficulties and misfortunes have been encountered; but, thanks to the growth of the national wealth and to the remarkable recuperative powers of the country, these have been successfully overcome. The reality of material progress in India is sometimes questioned, and the terrible ravages of famine are said to be incompatible with it. A growing land revenue accompanied by a diminishing incidence on the cultivated area, and a steady rise in the receipts from salt, excise, customs, and income-tax, are in themselves no uncertain index of developing resources, and abundant testimony outside the Government accounts is not wanting. In 1876–7 the total value of the exports and imports of British India (excluding bullion) amounted to 61 and 37 crores respectively; in 1902–3 the figures had risen to 129 and 86 crores. In 1878–9 there were 78 cotton and jute mills with a capital (so far as known) of $8\frac{2}{3}$ crores; in 1902–3 the number of mills had increased to 237 and the capital to $24\frac{1}{2}$ crores. In 1878 one million tons of coal were produced in India; in 1902, $7\frac{1}{2}$ millions. In 1891 the petroleum sources yielded $6\frac{2}{3}$ million gallons; in 1902, $56\frac{3}{5}$ millions. In 1884–5 there were 694 joint stock companies in India with a paid-up capital of $20\frac{2}{3}$ crores; in 1903–4, 1,489 companies owned a paid-up capital of $39\frac{3}{4}$ crores. The course of commercial and industrial progress

never runs smooth; but in spite of periods of misfortune and depression there are abundant signs that India is advancing steadily, and it is not unreasonable to anticipate that she is entering on an era of material prosperity the like of which she has never known in the past. If such be the case, the Indian financiers of the future may achieve even greater results than their predecessors. The outlook, however, is not without its anxieties. The malignant influence of a falling exchange has been dispelled; but with a precarious opium revenue, a land revenue which can hardly be expected to maintain its former rate of growth, and a customs revenue which is threatened by an increase in the home production of some of the most important staples of the import trade, it may be that the resources on which the state has heretofore relied will not prove adequate for the needs of the future. But difficulties of this description which do not arise from a decay of national wealth may be overcome by skill and prudence, and there is no reason to apprehend that the Government will lack the means to carry out administrative improvements and to foster economic progress.

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For information as to the revenue and expenditure of the Provinces and principal Native States, see the articles thereon in the several volumes of this *Gazetteer*.

TABLE I

(*In lakhs of rupees*)

Revenue and Expenditure.	1876-7.	1881-2.	1886-7.	1891-2.	1896-7.	1901-2.	1902-3.	1903-4.	1904-5.
Gross Revenue	58,65	72,55	77,34	89,14	94,13	1,14,52	1,16,15	1,25,63	1,27,22
Gross ordinary expenditure	59,05	68,36	76,34	86,54	93,59	1,05,87	1,10,00	1,19,70	1,20,33
Extraordinary expenditure	2,18	−12	82	1,45	2,25	80	70	47	70
TOTAL OUTLAY	61,23	68,24	77,16	87,99	95,84	1,06,67	1,10,70	1,20,17	1,21,03
Surplus or deficit	−2,58	+4,31	+18	+1,15	−1,71	+7,85	+5,45	+5,46	+6,19
Reduction or avoidance of debt		72		68		43	85	97	1,00
Surplus or deficit as in published accounts	−2,58	+3,59	+18	+47	−1,71	+7,42	+4,60	+4,49	+5,19
Debt.									
Sterling debt converted into rupees at Rs. 15 to the pound	83,07	1,02,04	1,26,29	1,61,02	1,72,26	2,01,40	2,00,64	1,99,51	1,99,27
Rupee debt	71,86	88,53	92,60	1,02,65	1,08,21	1,15,94	1,17,32	1,19,20	1,22,08
TOTAL	1,54,93	1,90,57	2,18,89	2,63,67	2,80,47	3,17,34	3,17,96	3,18,71	3,21,35
Distribution of Debt.									
Ordinary debt proper	1,18,31	1,11,51	99,30	1,02,15	91,95	90,43	84,99	78,17	72,57
Loans at interest	6,15	8,06	7,39	11,00	12,23	19,00	18,90	18,36	18,03
Construction of railways *	15,37	36,86	59,14	71,87	94,07	1,12,54	1,17,61	1,24,64	1,32,33
Purchase of railways	..	15,24	27,78	50,33	50,32	59,21	59,21	59,21	59,21
Irrigation	15,10	18,90	25,28	28,32	31,90	36,16	37,25	38,33	39,21
Foreign Trade.									
Value of commodities exported	61,01	81,97	88,47	1,08,17	1,03,98	1,24,90	1,29,40	1,53,52	1,57,71
Value of commodities imported	37,44	49,11	61,78	69,43	76,12	88,73	85,82	92,59	1,04,41

* Exclusive of outlay met from funds raised by companies working state railways.

TABLE II. NET REVENUE

(*In lakhs of rupees*)

Revenue other than taxation.	1876-7.	1881-2.	1886-7.	1891-2.	1896-7.	1901-2.	1902-3.	1903-4.	1904-5.
Land revenue	17,27	19,67	20,62	21,27	20,60	23,99	24,19	25,27	24,71
Tributes and contributions from Native States	62	66	65	72	86	84	87	62	63
Forests	16	31	38	64	73	67	81	99	1,09
Opium	6,28	7,80	6,22	6,15	3,92	4,86	4,27	5,26	6,08
Miscellaneous	*12*	*9*	*2*	17	38	7	*33*	*4*	17
TOTAL	24,21	28,35	27,85	28,95	26,49	30,43	29,81	32,10	32,68
Taxation.									
Salt	5,74	6,48	5,75	7,72	7,51	8,00	8,38	6,98	7,12
Excise	2,43	3,29	4,19	4,86	5,32	5,79	6,29	7,08	7,60
Customs	2,20	2,08	1,06	1,50	4,15	5,36	5,51	5,51	6,13
Assessed taxes	1	50	1,28	1,61	1,83	2,01	2,07	1,77	1,86
Provincial rates	1,82	2,83	2,94	3,44	3,47	4,04	4,05	4,17	4,18
Stamps	2,70	3,23	3,56	4,08	4,56	4,95	4,99	5,12	5,36
Registration	6	10	11	19	22	21	21	22	24
TOTAL	14,96	18,51	18,89	23,40	27,06	30,36	31,50	30,85	32,49
TOTAL NET REVENUE	39,17	46,86	46,74	52,35	53,55	60,79	61,31	62,95	65,17

Figures in italics represent excess of expenditure over receipts.

TABLE III. NET EXPENDITURE

(*In lakhs of rupees*)

Civil Administration.	1876-7.	1881-2.	1886-7.	1891-2.	1896-7.	1901-2.	1902-3.	1903-4.	1904-5.
Land Revenue . .	1,48	1,52	2,02	2,21	1,89	1,98	2,02	2,08	2,17
Civil Departments .	9,31	9,62	11,24	12,20	13,77	14,83	15,55	15,57	16,28
Miscellaneous Civil charges . . .	2,93	3,57	3,83	4,31	5,17	5,34	5,46	5,45	5,53
TOTAL	13,72	14,71	17,09	18,72	20,83	22,15	23,03	23,10	23,98
Post Office . .	13	22	20	4	*8*	*15*	*12*	*15*	*8*
Telegraphs . .	15	8	2	*8*	*12*	..	5	9	1
Mint	*12*	2	*10*	*11*	*10*	*8*	2	*15*	*13*
TOTAL	16	32	12	*15*	*30*	*23*	*5*	*21*	*20*
Public Works.									
Railways . . .	1,15	29	1,19	32	2,66	*1,27*	*34*	*1,29*	*3,16*
Irrigation . . .	62	57	65	67	10	*26*	*29*	*35*	*43*
Civil Works . .	2,84	3,43	3,60	4,42	3,99	4,85	5,55	6,14	6,43
TOTAL	4,61	4,29	5,44	5,41	6,75	3,32	4,92	4,50	2,84
Interest.									
Ordinary debt . .	4,66	4,32	3,95	3,84	2,99	2,35	2,15	1,91	1,80
Other obligations .	40	53	36	48	46	57	60	63	67
Receipts . . .	*55*	*90*	*67*	*88*	*1,08*	*1,18*	*1,30*	*1,34*	*1,27*
TOTAL	4,51	3,95	3,64	3,44	2,37	1,74	1,45	1,20	1,20
Army.									
Effective . . .	12,95	13,47	15,30	17,46	18,56	17,86	20,01	20,78	24,33
Non-effective . .	2,58	3,39	3,24	3,95	4,72	4,32	4,32	4,38	4,49
Military Works . .	1,16	1,02	87	1,16	1,10	1,37	1,59	1,48	1,40
TOTAL	16,69	17,88	19,41	22,57	24,38	23,55	25,92	26,64	30,22
Provincial and Local surplus or deficit .	−12	+1,52	+4	−24	−1,02	+1,61	−11	+1,79	+24
TOTAL NET EXPENDITURE	39,57	42,67	45,74	49,75	53,01	52,14	55,16	57,02	58,28

Figures in italics represent excess of receipts over expenditure.

TABLE IV. Public Works

(*In lakhs of rupees*)

Old Guaranteed Railways.	1876-7.	1881-2.	1886-7.	1891-2.	1896-7.	1901-2.	1902-3.	1903-4.	1904-5.
Interest	5,45	3,95	3,72	3,07	3,60	1,52	1,55	1,57	1,60
Net receipts *less* surplus profits, land, and supervision	4,77	*3,21*	*3,05*	*2,73*	*2,16*	*1,15*	*1,30*	*1,26*	*1,43*
Net charges	68	74	67	34	1,44	37	25	31	17
State Railways.									
Gross receipts	*38*	7,27	*10,83*	*16,41*	*17,64*	*28,92*	*28,70*	*30,86*	*34,35*
Working expenses	29	3,37	5,22	8,21	8,82	14,24	14,74	15,56	16,94
Net receipts	*9*	*3,90*	*5,61*	*8,20*	*8,82*	*14,68*	*13,96*	*15,30*	*17,41*
Interest on capital	56	1,89	3,68	5,66	7,07	8,45	8,79	9,12	9,50
Annuities, &c., for purchase of railways	..	1,49	2,31	2,43	2,85	4,50	4,50	4,51	4,51
Net charges or receipts	47	*52*	38	*11*	1,10	*1,73*	*67*	*1,67*	*3,40*
Net charge for assisted railways	..	2	4	..	6	*3*	*1*	*1*	..
Miscellaneous railway expenditure	..	5	10	9	6	12	9	8	7
Net charge or receipts for railways	1,15	29	1,19	32	2,66	*1,27*	*34*	*1,29*	*3,16*
Irrigation— Major Works.									
Gross direct receipts	*42*	*86*	*91*	*1,41*	*2,07*	*2,34*	*2,72*	*2,88*	*2,99*
Share of land revenue	*40*	*49*	*60*	*67*	*87*	*1,22*	*1,22*	*1,26*	*1,34*
Working expenses	36	46	63	76	87	1,05	1,13	1,22	1,31
Net receipts	*46*	*89*	*88*	*1,32*	*2,07*	*2,51*	*2,81*	*2,92*	*3,02*
Interest	64	80	99	1,11	1,25	1,42	1,45	1,49	1,52
Net charges or receipts	18	*9*	11	*21*	*82*	*1,09*	*1,36*	*1,43*	*1,50*
Total Railways and Major Irrigation.									
Net charges or receipts	1,33	20	1,30	11	1,84	*2,36*	*1,70*	*2,72*	*4,66*
Minor Works and Navigation	44	66	54	88	92	83	1,07	1,08	1,07
Civil Works	2,84	3,43	3,60	4,42	3,99	4,85	5,55	6,14	6,43
Grand total of charges.	4,61	4,29	5,44	5,41	6,75	3,32	4,92	4,50	2,84

Figures in italics represent excess of receipts over expenditure.

CHAPTER VII

LAND REVENUE

The subject utterly strange to most Englishmen.

A SUBJECT more remote from the interests of the average Englishman than the land revenue of India can scarcely be conceived. In order to appreciate it in any way he must translate himself into entirely new surroundings. He must leave behind him his limited conception of a land where the majority of the people live in big cities, where every one is dependent on the town for subsistence and for luxuries, where urban interests and urban wealth everywhere predominate. He must look instead upon a vast country where the immense majority of the people live by agriculture, where towns are exceedingly few in number, and where town industries are comparatively insignificant. In India the whole outlook is agricultural. The normal landscape of a prosperous Indian district is represented by some wide alluvial plain or slightly rolling upland where almost every square yard is under the plough. Hedges and walls are, as a rule, unknown; at harvest time the waving fields of rice, wheat, or other food-grains reach almost without interruption to the horizon; and in the intervals between the harvests an equally uninterrupted stretch of shimmering heat-baked soil fades away into the haze. Every morning during the cultivation season the Indian peasant—the most frugal and patient in the world—goes out to his fields with his cattle to work his well or to plough his land: and every evening he returns to his thatched cottage by the trees or his mud-built house in the closely packed village. His wants, such as they are, are met by the local artisans and menials, whom he rewards with customary contributions from his harvest. From this out-turn every class is provided for: it is to this that the Government looks for its revenue, the landlord (if there be one) for his rent, the grain merchant for his profits, and the labourers and artisans for their wages. To all these persons—and collectively they represent nearly the whole of India—the harvest is the centre of interest, and to most of them the 'state of the crops' is no mere formal topic of conversation but the all-absorbing question of life.

To appreciate the question of Indian land revenue, therefore, the Englishman must put himself into a social environment entirely different from that with which he is acquainted at home. His political and economic preconceptions will also require considerable readjustment. The place, for instance, which is occupied by the land tax in English finance is very small, the receipts amounting to less than 1 per cent. of the total public income; whereas in India the land revenue provides more than 23 per cent. of the whole income of the state and nearly 39 per cent. of the revenue proper. The system, moreover, of tenures and titles to land in the British Isles is so unique, and there is so little in England corresponding to the peasant holdings or to the 'cadastre' of continental nations, that an English inquirer approaches the land problems of India from a standpoint even more remote than that of the inhabitants of the greater part of the rest of Europe. He is apt also, if he pushes his investigations far, to be appalled by the amount of official literature to be studied on the subject and the esoteric character of the language in which much of it is written. Indian histories, too, while recording the names of celebrated soldiers and diplomatists, seldom mention those of men who, like Shore, Duncan, Munro, Thomason, and Wingate, have by their labours in the department of Indian land revenue profoundly influenced the welfare of many generations throughout vast tracts of country, and whose work must always retain for Indian administrators a great deal both of interest and importance.

Difficulty attending general description of Indian land revenue systems.

It is at the same time most difficult to satisfy the wants of an outside inquirer by presenting in limited space a conspectus of Indian land revenue administration which shall be at once illuminating and accurate. To every general statement there are numerous exceptions; and a pronouncement which is true as regards one Province or District can seldom be accepted without modification for other parts of the country. There are no doubt certain principles and methods which in a general way underlie the various systems in force, and it is the object of the following pages to present these as clearly as possible; but in the perusal of what is here written it cannot be too carefully borne in mind that the actual details of revenue work are characterized by a variety and intricacy which no general description, much less an account as succinct as the present must be, can in any way hope to reproduce.

Land revenue under native rule.

The land revenue of modern India is a form of public income derived from the immemorial custom of the country. In its primary form the land revenue was that portion of the cultivator's

grain-heap which the state annexed for the public use, and this crude method of realizing the bulk of the state income appears to have been practically the only method in force throughout the greater part of India until the sixteenth century of our era. In that century the Mughal power was finally established in the north of India and began gradually to extend its influence southward into the Peninsula. Under its firm and centralized administration the system of land revenue underwent a series of reforms, chiefly connected with the names of the emperor Akbar, who ruled from A.D. 1556 to A.D. 1605, and his Hindu minister, Todar Mal. Cash payments, for instance, were to a large extent substituted for those in kind; the cash rates were, when possible, fixed for a period of years instead of being subject to annual alteration; and a more or less uniform system of revenue accounts was established, the terminology of which has now permeated every part of India[1]. But with the break-up of the Mughal empire and the increasing independence of the outlying provincial governors, the practice of leasing the revenue of large tracts of country became common; the check on the farmers of revenue became less and less careful; and although the memory of the Mughal assessments did not altogether die out, the collection of land revenue by the later Muhammadan governors, and by the Marāthā and Sikh powers which grew up alongside of them, became practically little more than a disorganized scramble for the greatest amount of income which could be wrung from the land.

Subsequent development: zamīndāri and ryotwāri.

As the several Provinces came under British control, their assessments were gradually reduced to order, the systems selected being at first tentatively adopted according to the varying circumstances of the different tracts and becoming more and more crystallized as time went on. The process was carried out with no little deliberation. In Bengal, which was acquired in 1765, a settled system was introduced by Lord Cornwallis in 1793. The greater part of the Madras Presidency was taken over in 1792–1801, and although the principles of the present system were introduced by Sir Thomas Munro and others early in the nineteenth century, the actual basis of the existing arrangements dates from as late as 1855. In the Agra Province, which was for the most part annexed in 1801 and 1803, the present system, though started in 1822, was first put on a working basis by the agency of Mr. R. M. Bird in 1833 and owes much of its

[1] A somewhat similar system was carried out in the Bombay Deccan by Malik Ambar, the great minister of Ahmadnagar, who died in A.D. 1626. See Baden-Powell's *Land Systems of British India*, iii. 205.

subsequent success to the exertions of Mr. Thomason between 1843 and 1853. So too in Bombay the tracts which fell under British dominion in 1818 were not taken systematically in hand till 1835, nor were they assessed on any fixed system prior to the Joint Report published in 1847 by Mr. Goldsmid, Captain Wingate, and Captain Davidson. A number of different systems were thus gradually evolved on lines which were for the most part mutually independent. The Supreme Government has, as a rule, wisely avoided the enforcement of unnecessary uniformity, so that the differences, both in principle and in method, among the various revenue systems in India are by no means inconsiderable. It is usual, however, to differentiate them roughly on broad lines according to the status of the person from whom the revenue is actually demanded. Where the revenue is imposed on an individual or community owning an estate, and occupying a position identical with, or analogous to, that of a landlord, the assessment is known as 'zamīndāri'; and where the revenue is imposed on individuals who are the actual occupants, or are accepted as representing the actual occupants of holdings, the assessment is known as 'ryotwāri[1].' The former of these systems prevails throughout Northern and Central India, that is to say in Bengal, the United Provinces, the Punjab, and the Central Provinces; and the latter in Bombay, Madras, Assam, and Burma. About 53 per cent. of the land revenue assessment of British India is zamīndāri and 47 per cent. ryotwāri.

Areas in which the land revenue system is still in an

In the Native States the assessments generally partake of the character of those prevalent in the adjoining portions of British territory. As a rule, the methods adopted are more primitive and the assessments higher than in British Districts,

[1] This is perhaps the most practical distinction between zamīndāri and ryotwāri; other characteristics have from time to time been looked upon as differentiating the two systems, such as the treatment of waste land, the annual revision of the demand, joint and several responsibility, the rights of Government in the soil, and so forth—but it is unnecessary to confuse the reader with discussion of these points. The distinction has its historic origin in the varying degrees in which, in different parts of the country, tribal occupation of territory has superseded the rights of the ruler, or full proprietary right has been granted to the individual. Under zamīndāri tenure the land is held as independent property. Under ryotwāri tenure, it is held of the Crown in a right of occupancy which is, under British rule, both heritable and transferable. Even in the distinction made in the text there is an element of inconsistency, for as time goes on there is a tendency to treat the many small self-cultivating landlords in the village communities of Northern India more and more individually, after the ryotwāri pattern.

undeveloped form.

but the general tendency is for the revenue systems of the Native States to become gradually assimilated to those of British India. The same may be said of the outlying areas under British administration, such as Upper Burma, parts of Assam, and the Baluchistān Districts, where the revenue arrangements are still in a somewhat incomplete state and have not yet been brought into line with those of the older Provinces. In the following pages, therefore, which profess to indicate the general principles of the Indian land revenue administration, it has not been thought necessary to refer again to the systems at present in force in Native States, or in Districts of the nature above described.

Three main branches of the subject.

It will be found convenient to note the general features of the Indian land revenue administration, whether zamīndāri or ryotwāri, under three heads which represent the processes actually followed: namely, (1) the preparation of the cadastral record, (2) the assessment of the revenue, and (3) the collection of the revenue so assessed. The first two processes are known collectively in most Provinces of India as the 'Settlement' of the land revenue, and the officer who carries them out is known as the 'Settlement Officer.' The duties of the assessing staff entail a minute local inspection from village to village through large tracts of country, and there are few officers of Government who are thrown more into contact with the people than the Settlement Officers, or have greater opportunities for understanding their wants and feelings.

I. The Cadastral Record

The cadastral map.

An essential preliminary to the assessment of land in India, as in other civilized countries, is the preparation of a cadastral map. It is true that in Bengal, where the revenue was permanently assessed in 1793, the present assessment rests on information obtained without the aid of a survey; but this defect has given rise to inconveniences both fiscal and administrative, and it was found necessary in 1892 to introduce a cadastral survey and record in the Bihār Districts of that Province in order to regulate the relations of landlord and tenant. In Provinces outside Bengal the existing assessments are based almost without exception on a field to field survey. The map is prepared in some instances by the scientific staff of the Survey department; in others the skeleton data alone are provided scientifically and the rest of the work is plotted by a local staff. A separate map is usually prepared for each 'village,' the village in India being a tract of land corresponding in some ways to

the 'parish' in Great Britain. The ultimate unit of assessment in most Provinces is the holding, and it is usual to map as they stand the fields of which the holding is composed. In Bombay, however (and to a lesser degree in Madras also), the actual holdings are to a large extent grouped into small 'survey numbers' with practically immutable boundaries which are solidly and carefully marked out upon the ground; and in Bombay this fact constitutes so characteristic a feature of the revenue system that the occupant who holds a survey number on the condition of paying the revenue assessed on it is said to hold on the 'survey tenure.'

The fiscal record.

The cadastral map having been completed, a field register is usually prepared to correspond with it, and from this field register is prepared the ledger of holdings which corresponds to the 'matrice cadastrale' of Europe. This record is primarily a fiscal record, the object of which is to show from whom the assessment of each holding or field or number is to be realized and the amount to be realized in each case. It is not sufficient for this purpose to detail the names of the persons in possession, for there may be several parties in possession of the same land, holding various classes of rights—one being in the position of over-proprietor, another in that of under-proprietor, another as mortgagee, another as tenant, another as sub-tenant, and so forth; and it is necessary to specify which of these parties is responsible for the revenue or (to use the technical phrase) with which of them the settlement is to be made. The principles upon which this point should be determined were the subject of prolonged discussion in the various Provinces at the commencement of British rule, and their determination involved an immense amount of inquiry into the complex and ill-defined tenures then found to be in existence. Owing to the interest excited by these inquiries the decision of revenue questions in India for many years entailed a minute examination of ancient tenures, and it is only of late years—since the old questions have been set at rest—that the study of the technique of Indian land revenue has to a certain extent been separable from the historical investigation of the origins of existing rights in land.

When the country was first taken over, the peasant who cultivated the land was found in some cases to be a temporary occupant only: in others he was recognized by custom as having certain hereditary rights. In some cases he paid the revenue direct to Government, in others the payment was made through an intermediary. This intermediary was in some cases a village headman, whose only authority over the peasant lay in

the right to collect revenue; in other cases he was a large revenue contractor appointed by the ruler of the day, or an official to whom the revenue had been assigned, or some hereditary chief whose position had been wholly or partially recognized by the Government in power, or a community of hereditary cultivators which had survived the disintegrating influence of time. The degree too in which any of these intermediaries interfered with the land or was in his turn interfered with by Government varied greatly. In some cases he could oust cultivators, in others he could not. In some cases he could break up waste or alienate land, in others not. In some cases the Government could remove him during his life or confiscate his rights on his death; in others he and his heirs were left in undisturbed enjoyment. In some cases he was the only intermediary between the cultivator and the Government; in others he was one of a long chain of intermediaries, each of whom was allowed, or had usurped, special claims.

Soon after annexation, therefore, it had in each Province to be determined whether the revenue should be taken direct from the cultivating peasant, and, if not, from which class of intermediaries it should be realized. In determining this point the Governments of the day were led partly by motives of convenience, and partly by the presumption that one or other of the parties must stand to the soil in a position resembling more or less that of proprietor, and that the party so standing was *caeteris paribus* entitled to be held responsible for the revenue. Accordingly, in Bengal, in parts of Madras and of the United Provinces, and in the Central Provinces, the highest class of intermediaries, standing next below the Government, were generally accepted as the payers of the revenue. In the rest of the United Provinces and in the Punjab a somewhat similar position was accorded to the representatives of the village communities, the several members of which were accepted as proprietors of their several shares or holdings. In Bombay, Assam, and Burma, on the other hand, and in the greater part of Madras, the intermediaries, where they existed, were very generally disregarded and the assessment was collected from the actual occupant of the soil. In cases, such as are found more particularly in Northern India, where two classes of proprietors, superior and inferior, were recognized, the revenue was imposed on one party or the other as circumstances prompted; but the management of the land generally was left to the inferior proprietor, while the superior was guaranteed as compensation an allowance by deduction from the Government

demand. In one way or another a decision was thus ultimately arrived at in each Province that the parties who possessed some specified class of right should be held responsible for the revenue, and the cadastral record necessarily included the names of the persons understood to be in possession of that particular class of right[1].

The record of rights in land.

The cadastral record of a District which is drawn up at the time of assessment is thus primarily a fiscal record prepared in order to enable the Government to identify the persons who are under obligations to itself. But from what has been said above it will be seen how closely the matters connected with the preparation of this record are bound up with the general issues of the land-tenure question throughout India. It has therefore been usual to supplement entries in this record, either by additional entries or by a separate record, in such a way as to show to a greater or less extent the existing rights in, and encumbrances on, the land. In the older ryotwāri Provinces, where rights in the soil other than those possessed by the occupants who pay the revenue are not especially prominent, the record has, it is true, retained to a large extent a purely fiscal character. But although the Madras records still concern themselves only with the entries of the responsible revenue payers, arrangements have recently been made in Bombay for starting a supplementary register for the record of mortgages, sub-tenancies, and the like. In Bengal, although the preparation of a complete record of tenants' rights has hitherto been mainly confined to Bihār and to certain temporarily settled tracts elsewhere, the revenue roll is supplemented by registers in which mortgagees and certain classes of tenure-holders and farmers are entitled to record their rights. In Northern India, the Central Provinces, and the ryotwāri Provinces of Assam

[1] The persons thus recognized as proprietors (and also certain classes of tenants) were in almost all parts of India permitted to exercise free rights of transfer by sale, mortgage, gift, &c.; but an extravagant use of these rights tends in many Provinces to the disintegration of the larger properties and the transfer of land from the agricultural to the non-agricultural classes. Efforts have been made, from 1862 onwards, to preserve historic estates from the break-up with which they are thus threatened by means of Acts permitting temporary management by Government, transmission by primogeniture, and other remedies; and legislation of this kind is now in force in Sind, in various parts of Bombay, in Oudh, the Punjab, Bundelkhand, Ajmer, Chotā Nāgpur, and in the zamīndāri areas of Madras. Steps have also been recently taken to curtail the right of transfer to money-lenders and other non-agriculturists in the Punjab and in Bundelkhand: and similar restrictions have been imposed on certain classes of tenants in the Central Provinces and on the new occupants of certain vacant areas in Bombay.

and Burma the cadastral record is of a much more complete character, setting forth all classes of proprietary or tenant right, and all the more common forms of farm and mortgage; and the preparation of the record has hitherto constituted a very important part of the Settlement Officer's duties. In the greater part of British India therefore the cadastral record forms a valuable compendium of the existing titles in, and encumbrances on, each parcel of the soil; and in most of the Provinces where it is prepared in the form of a record of rights, this record is given by law a presumptive force, being held to be correct until the contrary is proved.

Maintenance of the record.

A map and cadastral record has of necessity to be prepared when a District is brought under assessment; and, for fiscal purposes, the changes which occur between one assessment and another must to some extent be reproduced in the record. In the ryotwāri areas, where the number of revenue-payers is large, and where the entries have as a rule been confined to a record of revenue-payers, the registers are usually corrected with some care from year to year. But in the zamīndāri Provinces, where the fiscal objects of the register were comparatively limited and it consisted generally of a record of rights in which the Government was not directly interested, there was in former times a tendency to leave the register untouched between one assessment and another, that is to say, for periods varying from twenty to thirty years. This neglect entailed grave inconveniences in two directions. It became necessary at each new assessment to prepare the record again from the beginning at a considerable expenditure of time and trouble both to Government and to the people; and the record itself, after a few years from the date of its completion, no longer represented with any accuracy the existing state of rights in the land. Arrangements have accordingly been made during the last twenty years under which the records are now in most Provinces revised either annually or at short intervals in such a way as to maintain intact and up to date the accuracy of the initial record; the staff to which the work is entrusted has been very greatly improved; the parties interested are as a rule required under legal penalties to report all changes in rights; and in more than one Province the revised editions of the record thus maintained by local agency are given the same presumptive authority at law as the initial record itself. There is therefore gradually being built up in India a very extensive and complete system of registration of title by public entry. In the case of the more important transfers of proprietary right the

revenue record is supplemented by the registration of assurances which is effected under the general Registration law; but for the vast majority of persons connected with the land in India the revenue record forms the only evidence of title, and a large number of transfers are attested in no other way than by entry in this record. There has thus, out of the fiscal necessities of the Government, been developed the nucleus of a system of public transfer, which, as Sir Henry Maine has said, 'is now the system of the whole civilized world, except England and the countries under the influence of English jurisprudence'; and the revenue records over a large part of India combine, like the 'cadastre' of the Continent, the functions of a fiscal memorandum with those of a proprietary register.

II. The Assessment of the Land Revenue

Evolution of the British fixed cash assessments.

As already noted, the original custom of native governments throughout the greater part of India was to take as land revenue a share of the produce in kind. Revenue is indeed still levied in this manner in many of the Native States, and there are large tracts of India where rents are taken by landlords in no other way. The grave inconveniences of such a system of revenue collection—the large staff of officials required; the troublesome storage of grain; and the openings for peculation, harassment, and oppression—can however be easily understood. The system was, therefore, under native rule gradually subjected to various modifications. Sometimes the presence of a government official on the threshing-floor was dispensed with by having the out-turn of the standing crop and the government share estimated beforehand. Sometimes the grain was not actually removed by the government, but was compulsorily sold to the landholder and the value realized by the government in cash. And sometimes, especially when the produce was not easy to divide into shares, the standing crop was assessed at cash rates per *bīgha*[1]. The great reforms of Akbar's time carried the process a step farther—a calculation of the average cash value of the state's share of each crop for a series of years was worked out per *bīgha*, and the landholders were given an opportunity of paying their revenue in cash at *bīgha* rates, which were fixed for a definite period, without fear of enhancement. A great deal of the revenue, especially in the outlying provinces, was still realized in kind, but the accounts were all kept in the cash equivalents; and as time went on, it became customary, while maintaining cash *bīgha* rates as

[1] A *bīgha* is, generally speaking, five-eighths of an acre.

a standard, to lease the collection for villages and other larger areas to middlemen who paid to the state fixed lump sums per annum. The rates on which these lump assessments were based were, however, gradually lost sight of or manipulated for the benefit of the contractors, and the contract assessments themselves were gradually forced up as the necessities of the government increased. After the advent of British rule the principle of a contract assessment in cash was maintained, and the revenue was assessed in this form either on the individual fields, as in the South, or on the larger estates or villages, as in Northern India. At the same time the old system was revived, by which the contract was fixed for a series of years instead of being liable to capricious alteration. The occupant in Southern India might, it is true, throw up his holding and so escape the assessment imposed upon it, whereas no such option rested with the landowners in the North; but the principle of assessment was in either case the same: namely, that the revenue should be realized in the form of a fixed annual payment in cash, the amount of which should be subject to no alteration during a prescribed term of years. And this fixed assessment in cash may be looked on as the standard characteristic of the land revenue of modern India.

Fluctuating cash assessments.

The solid advantages connected with fixity of the demand, the opportunities it afforded for the extension and improvement of agriculture, and the immense relief which it usually provided after the harassing variations of pre-annexation days, have made the Indian Government somewhat chary of allowing departures from the principle of a fixed revenue. In some tracts, indeed, as in Lower Burma, the assessment was imposed mainly by means of a fluctuating cash rate on the area cropped; and in certain special tracts elsewhere, especially those affected by river inundation or by irrigation from tanks or canals, assessments of a wholly or partially fluctuating nature were introduced; but as a general rule the system of fixed assessments was for many years very jealously maintained. It has always been recognized that a fixed demand, however light in itself, is apt to press hard on small holders in bad years in areas where the produce varies considerably from harvest to harvest; but it is only of late that, owing to the gradual improvement of the village agency and the increased accuracy of agricultural statistics, it has been found possible to modify to any adequate extent the rigidity of fixed assessments by apportioning the demand of each year more closely to the out-turn from which that demand has to be paid. It is now not uncommonly the

custom, as will be further noted below, to postpone or remit in bad seasons a portion or the whole of the fixed revenue in tracts affected by agricultural distress; and there is also a growing tendency in some Provinces to substitute for the fixed demand formerly in use some system of fluctuating assessment which usually takes the form of acreage rates on the areas sown or matured in each harvest, the rates so imposed being, like the lump assessments above described, unchangeable for a period of years. The assessment of fluctuating revenue has no doubt the disadvantage that it can only be carried out by a fairly well-trained staff, and that it subjects the landholders to a certain amount of annoyance and extortion at the hands of the lower grades of government officials; but it has also the great merit of apportioning the demand as nearly as possible to the varying out-turn of the land. Before extending the system to any new tract, its merits and demerits are closely weighed in connexion with the special characteristics of the tract under consideration; but, as above noted, the general tendency at the present day is to make a more liberal use of the fluctuating principle than had hitherto been customary.

Share of the gross produce represented by the land revenue.

It being premised, then, that the revenue, whether fixed or otherwise, is levied by means of a cash demand on each unit assessed, the next step is to note the considerations affecting the incidence of the cash demand thus imposed. Under native rule the assessments were usually represented either directly or indirectly as a certain fraction of the gross produce. What the fraction was and on what system it was based, it is impossible in any general way to record. The ancient textbook known as the Laws of Manu allows the king to take in kind one-twelfth to one-eighth, or if necessary one-fourth[1]; and these fractions, though scarcely to be accepted as serious historical data, are interesting as showing what the Brāhman authors of a pre-Muhammadan treatise looked upon as suitable shares for land revenue. The cash assessments of Akbar, according to the contemporary *Ain-i-Akbarī*, represented a third and, according to later authorities, a quarter of the produce[2]. The Hindu Rājās in the greater part of Madras, according to Sir Thomas Munro, took shares varying from two to three-fifths, and the Marāthā rulers in Western India are said to have exacted not less than one-half[3]. Similar figures can be quoted

[1] *Mānava-Dharma-Shāstra*, vii. 130, x. 118–20.

[2] *Ain-i-Akbarī*, Jarrett, ii. 63; Grant's *Political Survey of the Northern Circārs*, 5th Report, Madras ed., ii. 165.

[3] Arbuthnot's *Munro*, i. 248; Bombay Government letter 281 of March 30, 1901; Memo. para. 1, cf. Harington's *Analysis*, iii. 303, 324, 346.

on similar authority for other parts of India; and though they may not have been based on strictly mathematical data and may not have been applicable as they stand to the whole area of the tracts in question, yet they serve to illustrate the kind of standard to which the native revenues of pre-annexation days tended to approximate[1]. The question owes its interest mainly to the fact that (although the net 'assets' form in some ways a better ground of comparison) it has been customary to compare the incidence of the native and British assessments by contrasting the shares of the gross produce usually taken by either; and in this connexion the revenue totals have of late years been sometimes contrasted with estimates of the value of the gross produce. The Famine Commission of 1878-80 made a rough calculation which shows that the revenue of the various Provinces ranged from about 4 to 8 per cent. of the gross produce[2]. If the average out-turns accepted in 1878 be applied to the areas given by the Famine Commission of 1898, the total land revenue of India may be said to represent 5½ per cent. of the gross produce. Further and more accurate calculations made by the Famine Commission of 1900-1 show that in the Central Provinces the incidence of the present land revenue is less than 4 per cent. of the average value of the produce; that in Berār it is about 7 per cent., in Ajmer 10 per cent., in the greater part of the Punjab 7 per cent., in the Deccan something over 7 per cent., and in Gujarāt 20 per cent. Calculations recently made for Madras show that the land revenue and water-rates of the ryotwāri areas of that Presidency (excluding Malabar and South Kanara) fall at an average of about 10 per cent. on the gross produce. Even allowing for a margin of error in these figures, it is therefore clear that the Indian Government now takes a very much lower share of the gross produce than was customary in pre-British days.

The assess-

It is however only for statistical purposes that the present

[1] Such rates must be interpreted as indicating the relation of the revenue over a whole village or tract to the produce of that village or tract, and not as implying necessarily a uniform rate over all the holdings or fields. Where grain-rents prevail, the rates for the fields or holdings usually differ according to the soil, class of cultivation, &c., and the revenue of native sovereigns must as a rule have been differentiated ultimately in the same way. One of the difficulties connected with the existing descriptions of Akbar's settlement lies in the fact that the exaction of a uniform share of the gross produce from every cultivated acre throughout the empire is an idea almost inconceivable to any one acquainted with Indian rents in kind.

[2] Page 112, Part II of Commission's Report.

land revenue is attempted to be shown in terms of the gross produce. Economists have long ago recognized the injustice (in other than backward tracts) of land revenue assessments fixed at a uniform fraction of the gross produce, and the assessment of the revenue on this principle is now practically as obsolete in British India as in most of the civilized states of Europe. Except in Bombay, where the assessment is not fixed in terms of the produce at all, the revenue throughout India is assessed so as to represent a share not of the gross, but of the *net* produce. The meaning of the term 'net produce' or 'net assets' as employed for the purposes of assessment varies, it is true, in different parts of India[1]. In Northern India and in the Central Provinces it represents the rent, when rent is paid, or that portion of the gross produce which would, if the land were rented, be taken by the landlord; and in these Provinces it is therefore practically the equivalent of the actual or hypothetical rental. In Madras and Lower Burma, on the other hand, where Government deals as a rule direct with the cultivator, the net produce is the difference between the assumed value of the gross produce and a very liberal estimate of the cost incurred in raising and disposing of the crop (see p. 219). Speaking generally, therefore, the 'net assets' represent a higher share of the produce in Burma and Madras, where no middleman intervenes between the peasant proprietor and the Government, than they do in Northern India. In the two former Provinces they are the cultivating 'assets,' in the latter the proprietary 'assets[2].' But the principle throughout is that the revenue should be based on facts or calculations representing not the gross but the net production of the land to the payer, and it is in the correct ascertainment of this net production that the crucial feature of the assessment from a statistical point of view consists. It has been thought advisable therefore to record briefly the standard methods of procedure adopted in the larger Provinces for the ascertainment of the net incomings on which the assessment is imposed.

ment made on the net produce or net assets.

[1] The expression 'net produce' is that ordinarily employed in ryotwāri, and 'net assets' in zamīndāri, Provinces.

[2] Technically speaking there are three main bases on which the land can be assessed: namely, the selling value, the renting value, and the value of the net produce. The first is believed to be the system generally followed in America, the second in England, and the third on the Continent of Europe. Although the second and third systems are thus technically distinct, it is convenient in dealing with Indian arrangements to look on them as variations of the same principle, especially as the two must in practice be to some extent combined whenever the rent is taken in grain.

Calculation of the net produce or assets. United Provinces.

In the United Provinces the object aimed at is the ascertainment of the actual renting value of the land to be assessed. The chief guide adopted in the Province of Agra (and the system in Oudh is on somewhat similar lines) is the recorded cash rental of lands under tenants, and the rents so recorded are accepted as the basis for the assessment of such lands unless they are found by inquiry to be unstable, grossly inadequate, or fraudulent. In order to test the recorded rents, the area to be assessed is divided into circles and the soils in each circle are classified; the incidence of the recorded rents for each class of soil (after eliminating fraudulent, inadequate, privileged, nominal, fancy, and other abnormal rents) is then ascertained and compared with the rates of rent for each soil which are generally admitted to be in force. The results of the comparison are further tested by an examination of the statistics regarding population, crops, size of holdings, and so forth, and ultimately a standard set of rent rates is worked out. These standard rates are, with some modifications, utilized for the valuation of lands other than those which pay cash rents, that is, for determining the rental which such lands could fairly pay if so rented. By combining the rental valuations for rented and non-rented lands, a figure is obtained which represents the net 'assets' on which the assessment is levied.

Central Provinces.

In the Central Provinces, also, the actual cash rents are accepted as the net 'assets,' but as the rents are, generally speaking, revised by the Government at the time of assessment, the question resolves itself into the ascertainment of a suitable cash rental. To accomplish this, the comparative value of the various soils is ascertained, and the result is recorded in terms of a common unit, known as the 'soil unit.' The incidence of the existing rent on this unit in each village is then checked by a comparison with the incidence in other villages and by an examination of past enhancements and the rise of prices; and on these considerations is based a standard unit for each group of villages. This unit is then modified for each village according to local circumstances; and when the village unit is applied to the various soil-areas contained in each holding of the village, the result represents for each holding, and for the aggregate of holdings, the standard rental which could fairly be demanded. This is modified where necessary in each holding with reference to the present rent and any other special circumstances; and the sum of the rents actually fixed represents the amount which the landlord is legally entitled to claim, and constitutes the accepted 'assets' for the purpose of revenue assessment.

Punjab.

In the Punjab, where fair specimens of cash rents are not common and where only half the area is under tenants, the calculation of the 'assets' is somewhat more difficult. The area to be assessed is divided into circles and the cultivation in each circle is classified, either according to the soil or the mode of irrigation, or both. The area of crops grown in each class is ascertained, an average rate of out-turn is estimated, and the

value of the result is worked out by applying certain accepted average prices. The figure thus arrived at represents the value of the gross out-turn. From this (or from the produce before valuation) are deducted the items, such as fodder crops, payments to village menials, &c., which are in practice deducted before division of the grain-heap; to the remainder is applied a percentage representing the average rate of grain rent recorded, and the result is (subject to certain minor tests) accepted as the value of the net 'assets.'

Madras. In Madras the process is up to a certain point similar to that employed in the Punjab, though differing in details. The soils are carefully classified and grouped, and for each of the classes and sub-classes a 'grain value' is adopted, which represents the normal gross produce per acre of the chief food-grains. The gross produce is then converted into money by the application of a commutation rate, representing something less than the average prices of the preceding twenty years. From this sum a deduction of 10 to 27 per cent. is made for merchants' profits and distance from markets, and another deduction of from $6\frac{1}{4}$ to 25 per cent. to allow for vicissitudes of seasons and unprofitable patches of soil. From the amount as thus reduced is subtracted the estimated cost of cultivation as fixed for each class of soil: that is to say, the cost of cattle, implements, and seed, the wages of labour, and the cost of transplanting and manure; and the balance after subtracting these is taken (subject to further reductions made for relative inferiority by grading villages and irrigation sources) as the net produce on which the assessment is to be based.

Lower Burma. In Lower Burma the system followed is similar to, but simpler than, that of Madras. Homogeneous tracts are framed, soils are classified, out-turns are arrived at, and local harvest prices are applied to the result, so as to evolve the value of the gross produce per acre on each class of soil. From this is deducted the average cost of cultivation, including hire of cattle, cost of seed, depreciation of implements and farming stock, and the hire of such labour as is employed to supplement that of the cultivator and his family.

The results only approximate. It will be seen from these brief abstracts that the calculation of the net 'assets' or net produce is (as land valuations always must be) based to a certain degree on hypotheses. The uncertainty is reduced to a minimum in the United Provinces, where the recorded cash rental is largely followed; but where there are only rents in kind, the calculation involves certain assumptions regarding the out-turn and the value of the produce which must always be subject to error, and in Provinces like Madras and Lower Burma, where the rents are too few to be employed as standards, another source of possible error is introduced in the shape of the deduction for costs of cultivation.

These uncertainties are accepted as inevitable, and the process of land assessment nowhere professes to be an exact science; but in order to be on the safe side it has been usual—at least during the last half-century—to prepare the various estimates with considerable caution, and the prevailing tone in the calculations on which the assessments are based is one of extreme—and perhaps from a purely statistical point of view excessive—moderation.

Share taken of the net produce or net assets in former days.

As has been already noted, the state in India has from time immemorial held itself entitled to appropriate a share of the produce of the soil for the public use. When a native ruler took a share of the gross produce, it will generally be found that the share taken varied according to the soil, the position, the manner of cultivation, and other considerations; this being so, the cost of production was in reality an important factor in the determination of the varying shares taken by the state, and these shares, though expressed in terms of the gross produce, were thus often the equivalent of a fairly uniform share of the net produce. What share of the net produce was at any given time and place absorbed by the revenue was a matter which depended largely on the necessities of the ruler, and regarding which nothing like statistical information of a general character is forthcoming. The maxim of a Muhammadan lawyer is sometimes quoted to the effect that 'there shall be left for every man who cultivates his lands as much as he requires for his own support till the next crop be reaped, and that of his family, and for seed. This much shall be left to him: what remains is land tax and shall go to the public treasury [1].' In other words, the revenue of the Mughal period was accepted as in theory absorbing the whole of the economic rent, and to a large extent this was the actual practice prevailing in India before British annexation [2]. The history of the growth of property in India shows that in the days immediately preceding British rule the intermediary between the cultivator and the Government was seldom permitted to retain in his hands any considerable portion of the net 'assets' beyond what was requisite to cover the costs of collection. Under the native assessments, and the earlier British assessments which

[1] Report on the settlement of the Begum Sumroo's Pergunnahs, 1840. *North-Western Provinces Revenue Reporter*, vol. ii, 1874.

[2] See, for instance, Holt Mackenzie's Memo. of July 1, 1819, paragraphs 317 and 348 (*Selections from Revenue Records, North-Western Provinces*, 1818–20, pp. 75 and 80); evidence of James Mill (quoted, *ibid.* 1822–33, p. 391); Munro's Minute of December 31, 1824 (Arbuthnot's *Munro*, i, p. 247. Cf. Fifth Report of 1812, p. 18 (Madras edition).

were based upon them, land had little or no value in the market, sales and mortgages were exceedingly rare, and the intermediaries of various kinds, and even the actual cultivators, very often abandoned their rights in the soil rather than accept responsibility for the payment of the revenue. In 1793 the previous practice in Bengal was declared by the Government to have been that 'after deducting the expenses of collection, ten-elevenths were usually considered as the right of the public and the remainder the share of the landholder,' and it was ostensibly on this basis that the permanent assessment of Bengal was made in the same year.

In Bengal, where the assessment itself has remained unchanged, its relation to the rental has now fallen, owing to the rise of prices and the development of the country, from over 90 per cent. to something less than 25 per cent. In the other Provinces where the assessment is subject to periodical revision, it has been the policy of the Government to reduce gradually the proportion borne by the assessment to the net 'assets,' and this is nowhere better exemplified than in the Province of Agra, where the standards of assessment at various periods during the last century have been :—

In 1812 . .	90 per cent. of the net 'assets.'
1822 . .	80 " " "
1832 . .	72½ " " "
1849 . .	66⅔ " " "
1855 . .	50 " " "

In 1885 a further reduction was made by an alteration in the definition of the 'net assets': these had previously been held to represent the average annual 'assets' which the proprietors were likely to obtain during the coming term of settlement, but since 1885 they have been restricted to the actual 'assets' at the time of settlement. And the effect of recent rent legislation is to cause a still further reduction, for by obstructing enhancements it preserves in the hands of the tenants a part of the increased income which would otherwise become assessable to Government revenue. Another notable example of the gradual reduction of the proportion claimed by Government is furnished by the case of Orissa. There the standard was in 1822 declared to be 83·3 per cent. of the 'assets': in 1833 it was lowered to 70–75 per cent.: in 1840 to 65 per cent., with a permissive reduction to 60 per cent.: while at the resettlement lately concluded it has been brought down to 54 per cent.

At the present day.

Economists must recognize that whatever arithmetical standards may be adopted for guidance in such matters, it

is impossible to carry out in actual practice an assessment of revenue in terms of the 'assets' which can be represented by precise mathematical fractions, and the Indian Governments have not tied themselves down by legislation to the adoption of any definite share of the 'assets' as their limit of revenue demand. They have, however, in their instructions to the assessing officers, laid down certain approximate standards, and in practice a certain amount of variation from those standards is permitted. In the United Provinces the normal standard is 50 per cent., but deviations for good reasons are allowed, assessments of over 55 or less than 45 per cent. alone requiring special sanction; and the actual share taken averages less than 50 per cent. in the Province of Agra and less than 47 per cent. in Oudh. In the Central Provinces, which have been for a shorter period under British rule, the standard prescribed is from 50 to 60 per cent., assessments up to 65 per cent. being allowed only where the existing revenue already exceeds this proportion of the newly ascertained net 'assets' and has been paid without difficulty: and the average percentages taken in the Districts recently settled vary from 47 to 59. In the Punjab 50 per cent. is regarded as the maximum, and in most Districts the assessments are much below this. In Madras also the prescribed maximum is 50 per cent., and the rates actually taken on the net produce, depreciated for settlement purposes in a manner highly favourable to the ryot (page 219), are on the whole considerably below this figure. In Lower Burma, again, 50 per cent. is nominally the maximum, but for the present a provisional standard of 25 per cent. is accepted. For India as a whole, therefore, it is a fair generalization to say that the standard share of the calculated net 'assets' or produce to be taken by the Government for public use is approximately one-half; but the instances above given will show not only that the calculations of the net produce are usually very moderate, but also that the share actually taken is more frequently below than above one-half[1].

The actual assessments do not follow this standard rigidly.

In the last few paragraphs an attempt has been made to describe in some detail the statistical basis of the assessments in India, as it is chiefly on this basis that the proposals of assessing officers are checked by their superiors, and as it constitutes the only fair ground of comparison between the assessments of one tract and those of another. It would, however, be a mistake to suppose that the demand on the individual

[1] And this in its turn is in bad years liable to total or partial remission under the arrangements described on page 237 below.

revenue-payer represents a rigid adherence to a standard share of the net produce calculated on purely statistical data. It is unusual to apply, as they stand, the rates obtained by the statistical calculation of the net 'assets.' The continuity of the assessment, for instance, has to some extent to be maintained by a comparison with the existing revenue. The selling value of land, though it is not accepted in India, as in some other countries, as the basis of the land tax, is recognized as a useful supplementary test. In Provinces where rents are not sufficiently common to be themselves accepted as the net 'assets,' the existing rentals are often used for comparison with the calculated 'assets.' Other practical considerations are also brought under review, such as the size of the holdings, the general condition of the people, the increase or decrease of population, the ease or difficulty with which the past revenue has been collected, and so forth. On these and similar considerations a set of rates, separate from and generally lower than those deducible from the net 'assets' data, is prescribed for application to the various soils and circles under assessment.

In Provinces like Lower Burma, where the soils are fairly uniform and the assessment is practically fluctuating, these rates are then applied as they stand: but in the zamīndāri Provinces of Northern India there are further safeguards in their application. The rates are sanctioned for a tract or group of estates so as to give a certain revenue for that tract or group; and the assessing officer, in distributing the sum over the estates, is at liberty within certain limits to exceed or go below the figure which each estate would pay according to the strict rates. The process of determining the assessment is in fact, as Thomason described it, 'not one of arithmetical calculation but of judgement and sound discretion.' When it comes to the distribution of the revenue over the holdings within the village or estate, the individual landholders are further protected from a mere doctrinaire application of rates by the fact that the internal distribution of the assessment is as a rule left by the Government to the landholders to carry out by private arrangement[1]. In one way or another therefore considerable play

[1] To avoid misapprehension it may be well to note that the revenue is not in any Province of India assessed by apportionment as it is in France: that is to say, it is nowhere the custom to fix in a lump sum the revenue of the Province and to distribute it periodically over the Districts and villages in accordance with the local valuations. The fact that the settlements are for long terms and that the assessments in Northern India are first determined in the lump for groups of estates and are subsequently distributed over the estates and holdings gives the assessments, at least in the zamīndāri

is given to the working of local considerations and to the judgement and discretion of the assessing officer in the actual application of the standard rates, and it would be a mistake to imagine that the revenue is imposed in any part of India with slavish adherence to purely arithmetical data.

Special system of assessment in force in Bombay.

The principle of adhering to what are known as 'general considerations' rather than to statistical calculations of the net produce, though it also lies at the root of the Central Provinces system described on page 218 above, constitutes the distinguishing and essential feature of the assessments of Bombay. Under the Bombay system the comparative values of the different 'survey numbers' are first ascertained by a minute and careful soil classification, the results of which are expressed in fractions of a rupee, sixteen annas representing generally the best soil. The area to be assessed is then divided into homogeneous groups according to physical and economic characteristics; and for each group a careful review is made of the past revenue history, prices, selling and letting and mortgage value of land, vicissitudes of season, and every other relevant fact indicating the incidence of the previous assessment and the economic conditions of the tract. The general result to be attained by the revision of assessment being decided on, rates are determined which, when applied to each field by means of the classification, will bring about that result, higher rates being imposed on those groups which have the greater advantages and lower rates on the less favourably situated groups. The rates being applied automatically to the various fields according to their relative valuation, an assessment is arrived at for each field, and this constitutes the demand for the ensuing period of settlement.

Deductions from the revenue demand.

The revenue assessable, whether on the basis of the net 'assets' or otherwise, is in most parts of India subject to certain deductions, the more important of which may be here noticed: namely, (1) deductions to avoid sudden enhancement, (2) deductions to protect private improvements, and (3) deductions by way of assignment.

(1) Deductions to avoid sudden

In consequence of the long term for which settlements are usually made, it is inevitable that new assessments, however accurately and fairly fixed in view of increased resources, must

Provinces, something of the appearance of what the French call an 'impôt de répartition'; but the object of the tax is to assess each unit (viz. in Northern India the estate and in ryotwāri Provinces the survey number or field) at a certain proportion of its value, so that, although for convenience the data are considered by groups or Districts, the Indian land revenue should apparently be classed as a '*rated*' tax or an 'impôt de quotité' and not as an 'impôt de répartition.'

involve in some individual cases a considerable increase in the Government demand and a corresponding sudden decrease in the share of the revenue-payer. The hardship thus occasioned has been usually recognized, and arrangements have in most Provinces been made to mitigate it, either by limiting the degree of enhancement or by making the enhancements progressive over a series of years, or by both means. The present condition of the question is described as follows in a recent state paper published by the Government of India [1]:— enhancements.

'The mitigation of a large enhancement by spreading its imposition over a term of years has been a recognized feature in the settlement procedure of Upper India for a long time past, but has not till recently been brought systematically into practice. In 1895 the Government of India, with the concurrence of the Secretary of State, drew general attention to the advisability of making larger use of progressive enhancements. In the North-Western Provinces very complete effect has already been given to this principle. Similar rules have recently been used in the resettlement of the Seoni District in the Central Provinces, and the expediency will now be considered of prescribing it for general guidance in those Provinces. The rules on this subject contained in the Bengal Settlement Code are of particular application to ryots and tenure-holders; but they admit the use of progressive assessments in the Orissa settlements, though they lay down no definite scheme of progression, and, as a matter of fact, progressive assessments were most liberally granted in those settlements at a loss to the state of nearly 8 lakhs of rupees. In the Punjab, the use of progressive assessments has been discouraged on the ground that, though an appropriate means of easing an enhancement to a large landholder, they are not suitable to the circumstances of the petty proprietors who hold a very large proportion of the land in that Province. Large increases in the demand have been commonly avoided by under-assessment. But it seems open to question whether an expedient which has proved serviceable in other parts of India might not be usefully adopted in the Punjab, and the point will be considered, though the effect of progressive assessments in this Province would be to raise, not to lower, the Government revenue. Turning now to ryotwāri settlements, a rule of the Madras Settlement Code limits to 25 per cent. the enhancement which may be imposed at once, the balance being imposed by annual instalments, each not exceeding 12½ per cent. on the original assessment. This gives a ryot six years in which to accommodate himself to the doubling of his assessment. In the Bombay Presidency also the levy of substantial enhancements

[1] Resolution of the Governor-General-in-Council, No. 1, dated Jan. 16, 1902, paragraph 34.

is distributed over a term of years, and the maximum enhancement may not exceed double the former amount. Deviations from these rules have, however, apparently been permitted. The procedure of ryotwāri settlements renders it difficult for an assessing officer to pay close regard to the circumstances of individuals in framing his proposals; and there is, therefore, the greater need of general rules to obviate hardships in particular cases, even if it be conceded that men who cultivate their own land can support a heavier percentage enhancement than those who subsist upon rental receipts. The question is one that calls for, and will receive, further consideration.'

(2) Deductions to favour improvements.

The practice of exempting from assessment the increased income due to such improvements as have been made by private enterprise is one which seldom finds a place in forms of taxation other than that relating to land, and even in respect of land it was a principle only imperfectly recognized by the native rulers of India. But, although other forms of profits are duly taxed as they arise, the principle that land improvements should be exempted, either permanently or temporarily, from taxation has now been accepted by the Indian Government, and the degree to which the exemption is carried in the various Provinces will be understood from the following extract from the state paper above quoted, which explains that the principle in question is now provided for by definite rules

'culminating, in the case of the Bombay Presidency, in legal enactments which secure to the cultivator in perpetuity the whole of the profit arising not only from such irrigation works as private wells or tanks but from the minor improvements which would count for an increase in assessment under a system of reclassification of the soil. The Madras ryots have a recognized right to enjoy for ever the fruit of their improvements, and the exemption of wells, irrigation channels, and tanks which are private property is provided for by executive orders. Minor improvements are also protected, as in Bombay, by the permanent recognition of a land classification once fairly effected. In zamīndāri Provinces, where the revenue is temporarily assessed on estates as a whole, and not on each particular plot of land composing them, the state has not similarly surrendered its right to all share in improvements in which the capacity of the soil plays a part with the industry or outlay of the cultivator. But the principle followed has been that additional assessments should not be imposed on these grounds until the private labour or capital expended upon them has had time to reap a remunerative return. In the Punjab and Bengal the term of exemption has been fixed, without reference to the term of settlement, at twenty years for masonry wells, five years for canal distributaries, and ten years for other irrigation works. In the North-Western Provinces and the

Central Provinces, irrigation works not constructed by Government are freed for the term of settlement next following their construction, the average period of exemption being forty-five years in the former and thirty years in the latter Provinces[1].'

(3) Deductions by way of assignment of revenue.

There remains a further form of deduction from the land revenue receipts which, unlike the two above described, is peculiarly oriental in its origin: namely, that due to the practice of assigning or alienating to individuals the right of Government to collect its demand from the land or of permitting individuals to hold their land wholly or partially free of revenue. As each Province was taken over from the preceding native rulers an immense number of such grants were found in existence, and an immense amount of time was spent in the early days of British rule in determining to what extent and on what terms such grants should be continued. New grants of this character are still sometimes made; but the majority of those now in existence are an inheritance from native rule. The grants owe their existence to many causes, but they mostly have their origin in service of some kind done to Government or the community; and although the service is often of an intangible nature or has now become ancient history, the maintenance of these grants is recognized as a fair charge on the state.

Additions to the demand; cesses.

There are *per contra* certain additions to the land revenue demand, known comprehensively as 'cesses,' which, though not classed as land revenue, are, like the *centimes additionnels* in France, usually treated of along with it. These cesses are of two main classes: namely, (1) the local rates which are levied for certain local objects, such as roads, schools, dispensaries, and the like, which fall within the purview of the local boards; and (2) the sums payable for the remuneration of village officers, such as the headman, the accountant, and the watchman.

The local rates in the zamīndāri Provinces are assessed on the rental, and the rate in force in Bengal is $6\frac{1}{4}$ per cent., in the Punjab 5·2 per cent., and in the Province of Agra 6 per cent.; but in the last-named area two-fifths of the proceeds are devoted to the maintenance of a village watch which is usually provided for by a separate contribution. In the ryotwāri Provinces the cess is taken on the revenue; and the rate in Lower Burma is 10 per cent., in Assam 8·3 per cent., and in Madras and Bombay $6\frac{1}{4}$ per cent.

The village officers were under native rule usually remunerated by grants of land, by payments from the grain-heap at

[1] Resolution of the Governor-General-in-Council, No. 1, dated Jan. 16, 1902, paragraph 20.

harvest, or by fees collected direct from the people. The watchmen in the Central Provinces and Bombay are still maintained on these lines, but elsewhere they are supported wholly or partly by the proceeds of a cess to which in some Provinces non-agriculturists contribute. The headman, one of whose chief duties is the collection of the revenue, receives a remuneration, which in Northern and Central India takes the form of a commission, generally amounting to 5 per cent., on the revenue which he collects. The accountant, whose duties have been of late years considerably enlarged by the increased attention now paid to the maintenance of agricultural records, is in some Provinces supported with the help of grants from the public revenues, but till 1906 a cess provided at least part of his salary.

Term of assessment: the permanent settlement.

The cesses are levied under the authority of various legal enactments and can, subject to the same legislative authority, be altered from time to time at the will of the Government. In determining the land revenue, on the other hand, the Government is accustomed to announce that the amounts or rates imposed will not be altered till the expiry of a certain specified period. The first attempt to fix an assessment for a period extending over more than one year appears to have been that represented by the decennial settlement which was introduced towards the end of the reign of the emperor Akbar. On the expiry of this decennial settlement the acreage rates on which it was based do not seem to have been expressly altered, and indeed these rates appear to have been accepted as the standard or normal assessment for many years afterwards; but they were merely in force 'until further notice,' and in practice the demand of the later Mughal rulers, though based on the old rates or the lump assessments which they involved, was constantly altered by varying degrees of accretion, either by all-round enhancements, or by manipulation of the unit of measurement, or by the addition of cesses. Anything in the shape of a special contract or privileged assessment was looked on as liable to alteration on the death of the grantor or the grantee, and the ordinary assessments were usually open to modification each year according to the caprice of the ruler or his revenue-farmers.

This system was continued by the British Government in Bengal for some years after the assumption of the revenue administration of that Province in 1765; but the vexatious character of these annual assessments was soon recognized, and in 1772 the settlement of Bengal and Bihār was concluded,

mostly with revenue-farmers, for a period of five years. A good deal of discussion followed as to the sufficiency of the available information for a long-term settlement and other points; but ultimately in 1786 the Court of Directors prescribed the commencement of a ten-year assessment, and ordered that on its completion another report should be made which would enable them to decide as to the necessity or otherwise of any further changes.

The decennial settlement was accordingly commenced, and, under Lord Cornwallis's orders, it was announced that the assessment then demanded would be fixed in perpetuity if the Court of Directors agreed. The Directors, after careful consideration, concluded that there was not much hope of improving the information on which the settlement was based and that the evils of the previous system could only be avoided by a permanent arrangement. They hoped also that, by making the revenue demand permanent, they would induce the landlords to make improvements and in many indirect ways benefit the country. Accordingly the assessment was in 1793 declared to be perpetual, and the settlement then made, with some subsequent additions, constitutes what is known as the Permanent Settlement of Bengal. In 1795 the permanent system was extended to the Benares districts (now in the United Provinces), and in 1802 to certain portions of the Madras Presidency. Under these arrangements about five-sixths of the present Province of Bengal, one-eighth of Assam, one-tenth of the United Provinces, and a quarter of Madras, representing in all about one-fifth of the area of British India, are permanently settled. The land revenue throughout this area has now, like the English land tax, none of the characteristics of taxation, and may be said to be at the present day nothing more than a rent-charge, the burden of which has long ago been discounted by the reduced selling price of the land which it affects.

Temporary settlements.

When the greater part of the Province of Agra came under British rule in 1803, it was at first proposed that, after two or three experimental settlements for short terms, the permanent assessment should be extended to this Province also; but the proposal was ultimately negatived. Thenceforth the system adopted in the older Provinces was to continue the existing settlements for short terms, or without specification of term, until a long-term settlement could be introduced; while in newly annexed Provinces the short-term settlements necessary in the days immediately following annexation were as soon as possible succeeded by settlements for long periods. It is now

therefore the practice in the tracts outside the scope of the permanent settlement to assess each District or other similar unit of area for a period of years; and as the assessments were not originally introduced at a single date throughout India or throughout each Province, the result is that the dates for the reassessment of the various Districts are not simultaneous, but range, as it were, in a rough kind of *échelon* through each recurring period of time. The commonest term of settlement at the present day is one of thirty years—a period first introduced in Bombay in 1838, and thence extended to Madras and the Agra Province, where it has been the standard period for the last half-century. The same principle was followed in an extension of the Orissa settlement in 1867, and in confirming most of the settlements made in the Central Provinces between 1860 and 1870. But it never came into use in the Punjab, where in the greater part of the Province the shorter term of twenty years has been the recognized rule. The general question of the term of settlement was examined in 1895, when it was decided that thirty years should continue to be the ordinary term in Madras, Bombay, and the United Provinces; that in the Central Provinces twenty years should be the general rule; and that in the Punjab also twenty years should be the usual term, thirty years being admitted in some cases. In backward tracts, such as Burma and Assam, and in exceptional circumstances, such as exist in Sind, shorter terms are permitted. The reasons for this differentiation are thus explained by the Government of India :—

'Where the land is fully cultivated, rents fair, and agricultural production not liable to violent oscillations, it is sufficient if the demands of Government are readjusted once in thirty years, i.e. once in the lifetime of each generation. Where the opposite conditions prevail; where there are much waste land, low rents, and a fluctuating cultivation; or again where there is a rapid development of resources owing to the construction of roads, railways, or canals, to an increase of population, or to a rise in prices; the postponement of resettlement for so long a period is both injurious to the people, who are unequal to the strain of a sharp enhancement, and unjust to the general taxpayer, who is temporarily deprived of the additional revenue to which he has a legitimate claim [1].'

The standard period, therefore, to which the greater part of India is gradually tending to conform may be looked upon as thirty years.

[1] Resolution of the Governor-General-in-Council, No. 1, dated Jan. 16, 1902, paragraph 18.

The assessments of India are thus divided into two main classes according to the period for which they run: namely, permanent and temporary. Of the total land revenue of India in 1900–1 about 16 per cent. belongs to the former and 84 per cent. to the latter category. The respective merits of the two systems have been a good deal discussed; and suggestions, chiefly of an irresponsible character, have from time to time been put forward for altering the *status quo*, either by abrogating the permanent settlement in the tracts where it is in force, or by extending it to tracts where it has not hitherto been adopted. On the one hand, it is contended that the Government has lost and is losing an enormous revenue owing to the permanent settlement; that if a temporary settlement were substituted for it, the Government would now be entitled to a revenue of at least 9 crores of rupees per annum from the permanently settled tracts, or double the existing demand; that the indirect benefits claimed for the permanent assessment far from compensate for this direct and material loss; that the relative incidence of the revenue, even if approximately fair in 1793, has become grossly unequal in the course of the last hundred years; that the rest of India has to be taxed more heavily in order that Bengali landlords may continue to enjoy a purely unearned increment; that if India had been under representative government, the permanent settlement would long ago have been abolished; and that the state is justified in rescinding on behalf of the general taxpayer an obligation which has proved to be contrary to the public weal. On the other side, it is urged that if a permanent settlement were extended to the temporarily settled tracts, the expense and harassment of the present assessment operations would be avoided; that there would be no temptation to abandon cultivation on the approach of a revision of settlement in order to reduce the ostensible 'assets'; that the accumulation and investment of capital would be directly encouraged; that the people would lead a fuller and more contented life; and that the indirect benefit thus accruing in the future would more than compensate for the immediate loss of revenue.

Permanent versus temporary settlements.

It is not now usual to consider either of these suggestions as within the bounds of practical politics, but the latter suggestion, namely, the extension of the permanent system to temporarily settled areas, was under serious discussion as lately as in 1861–83. The general principle that a permanent settlement was advisable throughout India was indeed accepted by the Secretary of State, Sir Charles Wood, in 1862, and orders

Proposals for a simplified system of temporary settlement.

were given by him for its gradual introduction. But the practical difficulties connected with the proposal soon became apparent; the possibilities of increased cultivation were found to be much larger than were at first anticipated, the failings of the system in Bengal became more prominent, the unproductive use of rent by the majority of landlords excited greater comment, and the rise in the prices of produce and the fall in the value of silver gradually assumed greater dimensions. So that the scheme, after being shelved for many years, was finally negatived by Lord Kimberley in 1883.

Although, however, the proposal for a general permanent assessment was quashed, the discussions to which the proposal gave rise were fruitful in other ways. An effort was made to arrive at a scheme by which, while retaining the principle that assessments were liable to revision, the public might escape as far as possible the expense and harassment which the long inquiries preliminary to assessment had hitherto entailed; and a plan was discussed by which, when land had once been given a fair and equitable assessment, the initial revenue thus arrived at should not be altered in future except in order to meet (1) an extension of cultivation, (2) an increase of produce due to improvements made by the state, and (3) a rise of prices. The object of the plan was to avoid the detailed and troublesome inquiries which had hitherto preceded the fixing of the assessment, and, while avoiding the evils of a permanent settlement, to adopt what has been described as a 'permanent system of settlement.' But the practical objections to the adoption in its entirety of a uniform scheme of this nature were found to be considerable. No provision was made, for instance, for the taxation of such improvements as were only indirectly due to the action of the state, and which resulted from the increase of population, the development of the country, the introduction of new staples, and so forth. The guidance of price statistics was also found to be partial and fallacious; different villages would be differently affected by general variations in price; and in the Provinces where the revenue was based on the cash rental, it was found unsafe to assume that the rentals varied directly with the prices of produce.

Reforms resulting from the above.

The scheme in question is not therefore accepted at the present day as the sole basis of assessment in any Province; but considerable advances have recently been made in other ways towards attaining the object which the scheme was devised to secure, namely, the reduction of the tedious and

harassing investigations hitherto entailed by a revision of assessment. In most parts of India it was formerly the custom at each revision of assessment to prepare a fresh survey of the land, a fresh classification of the soils, and in some Provinces a fresh record of the rights of the landholders; the old measurements, classifications, and records of thirty or twenty years before being set aside as inaccurate or obsolete. As the surveys have improved in quality, however, it has been found possible to do away to a large extent with the practice of complete revision. In Bombay a classification of soil made for the second time, or once approved as final, is by law accepted as incapable of revision. In Madras, although no pledge has been given against future revisions of classification, the principle has been accepted that the existing classification, if found to be in the main equitable, shall not, on resettlement, be disturbed. So too in Northern India the great improvements effected in the land records during the last twenty years have enabled the Government to arrange that, when a map and record have once been accepted as sufficiently accurate, they shall be kept up to date and thus be at once available for use at a new assessment. By these means, and by the simplification of the methods of assessment, the period spent over the settlement of a District, which in Northern India used to be six or eight years, has now been reduced to an average of about four years, or even less, and is being still further reduced as the new arrangements come gradually into force[1].

Characteristics of Indian land revenue.

Minds accustomed only to European systems are apt to start with a prejudice against a form of revenue which may absorb half the rent, and to advocate its immediate conversion into taxation of the standard type. A reference, however, to the chapter on Indian rents in this Gazetteer[2] will show that historically the existence of the land revenue is anterior, and not subsequent, to that of private rents; that it finds its origin and

[1] The District is a fair unit to consider in this connexion, as the operations may usually be said to commence and close in the various parts of a District at the same time, and the interval between the commencing and closing represents roughly the period during which each landholder in the District is liable to periodical visitation and annoyance. The landholder is not affected by settlements proceeding in other Districts; and when it is said that the Madras survey, for instance, occupied from 1855 to 1896, this relates to the survey of many Districts and does not in the least imply that each landholder was subject to survey operations for forty years. (Even the total length of time taken to survey the Madras Presidency compares not unfavourably with that taken over the French Cadastral Survey, which lasted from 1807 to 1850.)

[2] Vol. III, chap. ix.

present basis in the immemorial right of the Crown in India to a share of the produce of all land within the state; and that rent, and rent-yielding property in land, owe their existence to the policy, adopted during the last hundred years, of gradually reducing the incidence of the revenue; so that, as a matter of history, the right of the state to the rent is superior to that of the private landholder. Moreover, in view of the fact that a land revenue of the Indian type is practically unknown to European readers, it is advisable to note that in comparison with most known forms of taxation it has merits which should not be overlooked. It is, for instance, the only considerable class of state revenue which (obtained as it is from profits on the staple industry of the country) can be raised without enhancing prices or diminishing general consumption. It approximates more than most forms of taxation to the 'single tax' which has, rightly or wrongly, been advocated by some theorists as the ideal type of assessment, and effects, in a measure, that 'nationalization of the land' which is not without strenuous supporters. It falls on that part of the produce which goes (or which under ordinary circumstances would go) not to the cultivator, but to the intermediary rent receiver. Even in respect of the latter, it is when permanently fixed a charge the burden of which has long been discounted, and when not fixed in perpetuity it approximates to a charge of this nature in so far as it is fixed for long terms. It is scarcely to be imagined, therefore, that a form of revenue which has these merits, and has besides the great advantage of having been from time immemorial known and accepted by the people in India, should be exchanged in any wholesale manner for other sources of taxation which would as a rule involve more unpopular and inquisitorial methods. That the proportion of the land revenue to the total income of the state is, however, gradually diminishing with the general development of the country will be evident from the following figures:—

Proportion borne by the land revenue to:—	1870–1. p. c.	1880–1. p. c.	1890–1. p. c.	1900–1. p. c.
The gross income of the state	39.0	29.5	28.0	23.2
The taxation proper	43.9	41.6	40.8	38.6

III. The Collection of the Land Revenue

Importance of the functions of land

The land revenue under native rule was, even more than at the present day, the mainstay of the state finances, and its collection, which (as will be observed below) was often a very

serious undertaking, was entrusted to the highest class of officials, and was looked upon as the central function of Government. To this day it is usual throughout the greater part of India to speak of the officer who represents the civil administration of each District, not as the Magistrate, or the Prefect, or the Administrator, but as the 'Collector': and the officers in magisterial charge of the subdivisions of a District are similarly known in most parts of India by native titles which indicate their connexion with the recovery of revenue. So too the minor administrative divisions of the country have for the most part been determined from the fiscal point of view, and the chief representatives of the several villages or groups of villages for purposes of police and general administration are in a large part of India the headmen whose primary duty is the collection of the revenue from the individual villagers. These facts may serve to explain how it is that the business of collecting the land revenue, though far less serious than it used to be, still occupies a much larger place in Indian administration than is usually allotted to similar duties in Europe. revenue collectors in India.

Owing partly to the general lack of capital among the agricultural population, the land revenue is seldom recovered by a single annual payment. The usual custom is for a portion to be paid after each harvest, the dates and amounts being fixed to meet the local circumstances of each tract. The dates are usually fixed so that each revenue-payer should have time to realize his produce or his rent before he is called upon to pay the revenue, and yet should be required to pay the revenue as soon as possible after the rent or produce has been realized. Instalments.

For the recovery of sums not paid by due date the Government has extensive powers conferred by law. In the disturbed period of native rule preceding British occupation the collection of the land revenue was sometimes a hazardous business, large bodies of troops being not infrequently employed and villages in some cases having to be coerced by the aid of artillery. In the early days of British occupation, while the people were still turbulent and the assessments severe and uneven, the most stringent measures were frequently adopted, and processes such as the sale of a defaulting estate or holding to an outsider were employed with a frequency which would not now be tolerated and which furnished at the time a grave cause of discontent among the people. At the present day, although the collection of revenue has for the most part been reduced to a matter of routine, the Government has very properly, in view of the importance of the demand and the vast number of Power of recovery.

individuals assessed, prescribed that the land revenue shall be regarded as a first charge on the land, and has retained for itself very ample powers of recovery. The procedure in the several Provinces differs somewhat in detail, but the general features are very similar, and it is the almost invariable rule that a defaulter, before being actively proceeded against, should be presented with a writ of demand. On this failing to secure the required payment, it is usual either to proceed against the movable property of the defaulter by attachment followed by sale, or to treat in a similar manner the immovable property which is the subject of the default or other immovable property held by the defaulter, or occasionally to arrest and confine the person of a wilful and stubborn defaulter for a limited time, or (in Northern India) to transfer the defaulter's land to his co-sharers for a period, or to take over the management of the property in default for a limited term. In some Provinces the order in which the various processes shall successively be tried has been laid down; in others this is left to the discretion of the executive authorities. But, as a rule, the writ of demand or the threat of attachment serves in itself to bring about without further trouble the payment of such sums as are in arrear, and the more serious procedure of sale is seldom resorted to. Where too, as in the greater part of Northern India, the co-sharers of a village are jointly and severally responsible for the revenue, it is becoming more and more uncommon to realize arrears at the ultimate charge of any but the sharer actually in default.

The Bengal sale law.

There is one exception to the general system of recovery sketched above: namely, the procedure established in the permanently settled areas of Bengal. The declaration of the permanent settlement in 1793 was very soon followed by regulations prescribing that, if the whole or part of an instalment of revenue was left unpaid at sunset on the day prescribed for payment, the estate concerned should immediately become liable to sale. The original severity of the rule has been gradually modified and the need for its exercise has gradually decreased as the incidence of the assessment became lighter, but the Bengal procedure is still unique in this respect that it applies to the recovery of arrears no other process than that of sale.

Suspension and remission of revenue.

In addition to the gradual amelioration of the actual procedure of recovery, there is a further point connected with the collection of the land revenue in which considerable progress

has been made of late years. It has already been noticed that in the greater part of India the assessment is a fixed cash demand, representing the revenue fairly payable on an average of a series of seasons. When the fixed assessments were first introduced, the memory in most Provinces of the evils connected with the variable assessments of native rule was still strong, and for many years the fixity of the demand introduced by the British was looked on as an axiom of revenue administration with which it was unwise to interfere. There lay at the root of the system the idea that the landholder in good seasons lays by enough to meet his revenue in bad seasons, and within certain limits this supposition was reasonable. Experience, however, gradually showed that among the smaller landholders and in tracts subject to great vicissitudes of season this was seldom the case, and that even in the richer tracts the hypothesis broke down under the stress of a serious scarcity. In areas, therefore, which are under a fixed assessment, it has been customary of late years in most Provinces to grant with greater freedom, as necessity arises, a postponement of the whole or part of the demand on a harvest, and even, in cases where ultimate recovery would entail real hardship, to allow an absolute remission of the demand. The detailed arrangements under which suspension or remission of land revenue is granted differ considerably in the different Provinces[1]; but the general aim in all parts of India is the same, and the practice of modifying the fixed collections by reasonable suspensions and remissions is now recognized in most Provinces. A notable example of this tendency was exhibited during the recent famine. In the years 1899–1900 and 1900–1 the collection of Rs. 2,06,37,000 of revenue was suspended in the Districts affected by famine, and at the conclusion of the famine in 1902 no less than Rs. 1,98,23,000 was entirely remitted.

The land revenues of the Mughals.

The available figures for the land revenue returns of the Mughal empire are incomplete and not altogether trustworthy, but from the latest investigations of historical students the following appears to be the best approximation we can make to the income from this source of revenue at various periods[2]:—

[1] In Madras, where it is the custom to assess fields capable of irrigation at high rates, the annual granting of remissions for failure or excess of water is part of the ordinary revenue routine.

[2] See especially Thomas's *Revenue Resources of the Moghal Empire* (1871), Hunter's *Indian Empire*, 3rd edition, pp. 352–7, and Jadunath Sirkar's *India of Aurangzib* (Calcutta, 1901).

Date.	Approximate relation of area of portion dealt with to present British India.	Total land revenue in rupees, excluding Afghān Provinces.	Land revenue of the areas corresponding roughly to the Punjab, the United Provinces, and Bengal.
		Rs.	Rs.
Akbar, A.D. 1594	Three-fifths	13,21,36,831	7,85,89,108
" A.D. 1605	Three-fifths	17,45,00,000*	...
Shāh Jahān, A.D. 1628	Three-fifths	17,50,00,000*	...
" A.D. 1648	Three-fourths	21,15,00,000	12,20,00,000
Aurangzeb, A. D. 1661	Three-fourths	26,35,12,752	16,18,05,020
" " 1665 (?)	Three-fourths	22,06,70,500†	11,44,35,500†
" " 1695	Three-fourths	20,12,76,425	11,88,01,650
" " 1697	Four-fifths	38,30,39,552‡	12,87,69,050‡
" " 1700 (?)	Four-fifths	33,68,16,584	12,42,42,674
" " 1707	Four-fifths	29,77,70,876	13,15,69,338
Muhammad Shāh, A.D. 1720 (?)	Four-fifths	29,40,76,776‖	10,71,01,533‖
Land revenue demand of 1900–1.	All	26,25,45,459	12,85,36,508

* Total for whole empire: Provincial details not available. † Omitting Bengal. ‡ Omitting Oudh. ‖ Omitting Orissa.

In making comparisons between the Mughal revenue-roll and that of the present day, several considerations have to be borne in mind. The peasants were in Mughal times liable to support a very large militia, the cost of which has been estimated at almost as much as the revenue itself; but this liability appears to have soon fallen into desuetude or to have been enforced only in time of war. The Mughal collections, too, were far more elastic than the British collections have hitherto been, for in good seasons the cultivator was subjected to surcharges of various kinds, and in bad years the demand (which was a severe one) was seldom collected in full. In any case the important point to remember is that the area under cultivation and the population were both much less in Akbar's time than now, while the purchasing power of the rupee was then twice or thrice as great as that of the corresponding coin at the present day. In the Punjab, the United Provinces, and Bengal, for instance, the assessment of Akbar was calculated to form the equivalent of some 4·8 million tons of wheat, while the present assessment of the same Provinces corresponds approximately to 1·9 million tons [1].

[1] The above calculation presumes that wheat sold in Akbar's time for $3\frac{1}{3}$ Akbari maunds or $1\frac{2}{3}$ modern standard maunds to the rupee, and now sells for ·4 maunds to the rupee—see Prinsep's *Useful Tables*, i. 77; *Ain-i-*

Development under British rule.

The development of the land revenue of British India since the Mutiny is shown by the following figures:—

	1856-7.	1870-1.	1880-1.	1890-1.	1900-1.
Land revenue receipts in lakhs of rupees.	17,30	19,96	21,91	24,05	26,25

The only territorial expansion of fiscal importance during these years was that represented by the annexation of Upper Burma in 1886; and the increase is mainly due to extension of cultivation and rise of prices, for, as the foregoing pages have shown, the Government share of the net produce is a diminishing rather than an increasing factor.

Incidence of the present land revenue.

The general incidence of the land revenue demand for the year 1900-1 in the several Provinces is shown in the following table:—

Province.	Land revenue assessed per head of population.	Incidence per acre of revenue in fully assessed area *.	
		For total area.	For cultivated area.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
Upper Burma	2 8 6	1 2 5	1 14 4
Lower Burma	2 12 0	2 0 4	2 2 2
Assam	1 1 3	0 13 3	1 2 6
Bengal	0 8 11	0 7 4	0 12 7
Agra	1 5 5	1 2 1	2 0 2
Oudh	1 3 6	1 1 8	1 15 1
Ajmer	0 13 1	0 7 1	1 3 11
Punjab	1 4 6	0 8 9	1 1 5
Sind	2 14 2	2 5 3	2 8 1
Bombay	1 0 4	1 0 7	1 9 10
Central Provinces	0 12 11	0 4 6	0 10 1
Berār	2 9 10	1 0 3	1 3 11
Madras	1 9 5	1 2 2	2 4 11
Coorg	2 0 8	1 2 11	1 4 11

* That is, after excluding the area which is held free of revenue or at privileged rates, under the arrangements described on p. 227 above.

In India, as a whole, the land revenue in 1900-1 came to Rs. 1-3-7 per head of the population, and the incidence in the fully assessed lands was for the total area R. 0-12-9 per acre, and for the cultivated area Rs. 1-7-8 per acre.

Conclusion.

The above sketch is intended to present the outlines of a system of taxation which, as already noted, must of necessity

Akbarī (Blochmann), i. 62. Figures are unfortunately not available for a proper comparison of the cultivated area in the same Provinces at the two periods under consideration, but there can be no reasonable doubt that cultivation has increased considerably since A.D. 1594.

be strange to the ordinary English reader. The Indian land tax is a heritage from preceding native rule, and the present state of its administration is the result of a natural growth which has proceeded on different lines in the different Provinces. Starting with a fairly detailed knowledge of native practice and a few axioms of orthodox political economy, the officers who have built up the present revenue administration of India have independently arrived at results which will, it is believed, compare very favourably with those reached in the contemporary systems of Continental Europe. The Indian arrangements are no doubt still in many respects defective. Some of them are in the experimental stage, and experiments in land revenue, like all experiments connected with land, require long periods in which to mature. There are several questions in which finality cannot yet be said to have been attained, but the whole procedure is by slow degrees developing on broader and more liberal lines than heretofore. To secure an adequate land revenue for the state with the least possible injury to the agricultural classes—this is in its widest form the problem which is every year in one or other of its details taxing the ingenuity and enthusiasm of a large number of the officers of the Government, and it is not unreasonable to expect that as time goes on the problem will be brought nearer and nearer to a satisfactory solution.

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the rising cost of cultivation in India and by the closing of the Indian mints. This, by raising the exchange value of the rupee, has produced a smaller equivalent in rupees for the dollar and tael prices realized in China, which have been kept from a corresponding rise by the competition of the native drug. Large quantities of opium are now produced in China, and might have ousted the Indian drug altogether were it not that the latter is of finer quality and is esteemed a greater luxury. Its position is, however, by no means assured, and recent political developments have added to the precarious character of the situation.

Mālwā opium.

As early as the beginning of the sixteenth century a native trade in opium existed between the west coast of India and the Far East, and for a time a large share of it fell into the hands of the Portuguese. The efforts of the East India Company were at first directed to the restriction or suppression of this trade, which interfered with the Bengal monopoly. This proved impossible, and in 1830 the Government of India authorized the export of Mālwā opium subject to the payment of duty. The levy of this duty has been facilitated by the circumstances that the main opium-producing tracts have no access to the seaboard except through British territory. The system introduced in 1830 is still maintained. The Government of India does not interfere with production or consumption in the Native States, but no opium may pass into British territory for export or consumption without payment of duty. The duty is levied at convenient stations maintained by the British Government at Indore and elsewhere, whence the bulk of the opium is consigned to a central dépôt at Bombay for issue to traders. The revenue has suffered from causes similar to those which have affected Bengal opium. In 1880–1 the Mālwā opium passed for export to China amounted to 37,000 chests, and in 1901–2 to less than 18,000 chests. The rate of duty per chest rose from Rs. 175 in 1830 to Rs. 700 in 1861, fluctuated between Rs. 700 and Rs. 600 until 1897–8, and was then reduced to Rs. 500. It was again raised to Rs. 600, following some improvement in exports, in 1904. The rate of duty has always been considerably less than the net profit from a chest of Bengal opium. The net receipts from Mālwā opium have fallen from 2½ crores in 1880–1 to 99 lakhs in 1902–3.

Consumption of opium in India.

Opium is consumed in all Provinces of India. The consumption is highest in Assam, where it amounts to 8·8 seers per thousand of the population. In Bombay the corresponding figure is 2·4 seers, in the United Provinces and Bengal 1·3

seers, and in Madras 1·1 seers. The drug is commonly taken in the form of pills; but in some places, chiefly on social and ceremonial occasions, it is drunk dissolved in water. An infusion of poppy heads called *post* is commonly used in parts of Northern India. Opium-smoking is not extensively practised in India proper, where it is considered a disreputable habit. Opium is largely used for medicinal purposes, and is a common household drug of the people.

Report of the Opium Commission of 1893.

In consequence of a resolution passed in the House of Commons, a Royal Commission was appointed in 1893 to inquire into the extent and effects of opium consumption in India, and to consider whether the production and sale of the drug otherwise than for medicinal purposes should be prohibited. With regard to the export trade to China, the Commission held that it would be for that country to take action if it wished the existing treaties annulled on the ground that the import of opium is injurious to its population. Opium is now largely manufactured in China, and if the Indian supply ceased the deficiency would soon be filled by an increase in the home production. It may be added that so far from having encouraged the production of opium in India, as is often alleged, the British authorities found it produced wherever this could profitably be done; and that their whole policy has been to restrict the production to authorized areas, while they have procured from many Native States, and notably from Hyderābād and Mysore, the discontinuance of internal opium production[1].

As regards internal consumption, the Commission were of opinion that the evil effects ascribed to the drug have been much exaggerated. They summarized the preponderant medical evidence in saying that 'the temperate use of opium in India should be viewed in the same light as the temperate use of alcohol in England. Opium is harmful, harmless, or even beneficial, according to the measure and discretion with which it is used.' They did not advise prohibition; they recommended the maintenance of the Bengal monopoly system of production;

[1] 'There is little doubt that more opium was consumed in India under native rule 150 years ago than now, and the stringent system of excise established by our Government has so greatly increased the price of the drug that consumption is reduced to a minimum. The danger is that this policy may be carried too far, and that by making opium too dear and too difficult to obtain, we may not only encourage smuggling, but may cause people who have been content with the moderate and beneficial use of opium to have recourse to alcohol, or to cheaper or more noxious stimulants, the consumption of which no Government can prevent.'—Sir John Strachey's *India*, 3rd edition, p. 154.

and they found that the arrangements for retail vend were in general sufficiently restrictive.

Supply of excise opium.

With some small exceptions, the cultivation of the poppy is forbidden in British India outside the area of the Bengal monopoly. The Patna and Ghāzīpur factories supply Bengal, Assam, the United Provinces, the Central Provinces, and, to a small extent, the Punjab and the Frontier Province; while Mālwā opium is the source for Bombay and Madras, and meets a considerable portion of the demand in the Punjab and the Frontier Province. In the Punjab some opium is produced locally, and some is imported from Kashmīr and certain Hill States, while the Frontier Province also draws a portion of its supply from these sources and from Afghānistān.

Excise system.

In Bengal, Assam, the United Provinces, and the Central Provinces, Bengal opium is sold at Government treasuries to licensed vendors and druggists at a fixed price, which includes the cost of production and the duty. In parts of the United Provinces the treasury officials are also permitted to sell opium direct to the public at fixed rates, an arrangement intended to check illicit practices in the opium-producing tracts. In the Punjab licensed wholesale vendors procure opium from the Government treasuries (in the case of Bengal opium) or from crop owners, or by importation, and sell to retail vendors. In Bombay opium passes from the central warehouse above mentioned to District dépôts, whence it is issued to licensed vendors; vendors may also import direct (under licence) from the sources of supply. In Madras, Mālwā opium from the Bombay warehouse is stored in two dépôts and sold to wholesale vendors.

The right of retail vend is in general sold by annual auction, for one or several sanctioned shops. Intoxicating drugs prepared from opium may be sold in some Provinces by licensed vendors, in others only by licensed druggists for medicinal purposes. Smoking preparations may, under certain restrictions, be made up privately, but may not be bought or sold in any part of British India. Private possession without licence is strictly limited for all classes of opium.

Excise revenue.

The excise revenue derived from opium is mainly composed of duty and vend fees. The rate of duty varies with the conditions of the locality, being highest where smuggling is most difficult. The average rate of duty per seer is Rs. 28·5 in Assam, Rs. 20·5 in Bengal, Rs. 13·5 in the Central Provinces, Rs. 10 in Madras and Bombay, Rs. 8·8 in the United Provinces, and Rs. 3·6 in the Punjab. Rs. 8½ per seer is, moreover, added

to the duty on Bengal opium to cover the cost of production. Adding vend fees to the duty, the average taxation per seer in 1902–3 varied from Rs. 34·9 in Assam to Rs. 11·5 in the Punjab.

Burma has been excluded from the above account because the circumstances in that Province are special. The consumption of opium, which there usually takes the form of smoking, is not commonly practised by Burmans: they appear to be specially susceptible to injury from it, and they view it in general with disfavour. The consumption is permitted only to non-Burmans, and to a limited number of Burmans specially registered as opium consumers in Lower Burma. The registration system was introduced in 1893, for the sake of such Burmans as had acquired the habit, when the general prohibition against consumption by Burmans was extended from Upper Burma, where it had been enforced since the kingdom was annexed, to the Lower Province. Bengal opium is used in Lower Burma; in Upper Burma this is supplemented by imports from Yünnan and the Shan States, and by manufacture in some remote Kachin villages. The number of retail shops is restricted within narrow limits, and the maximum amount that may be sold in each shop is fixed. The duty is very high, and, with the addition of the vend fees, the taxation in 1900–1 averaged Rs. 72 per seer. The high duty and stringent regulations encouraged smuggling; and it has recently been found necessary to make some improvements in the registration and vend system, and in the preventive arrangements, in order to meet this evil. These arrangements reduced the vend fees, but the average taxation per seer in 1902–3 was still as high as Rs. 51. Burma.

Salt

All salt consumed in British India is subject to duty, the rate which prevailed throughout the greater part of the empire between 1888 and 1903 being Rs. 2–8 per maund of $82\frac{2}{7}$ lb., reduced in the latter year to Rs. 2, and further reduced in 1905 to Rs. 1–8 per maund. In 1902–3 (before the reduction) the tax yielded a gross revenue of 9·3 and a net revenue of 8·4 crores. Objection has sometimes been taken to the principle of taxing a prime necessary of life such as salt. The existing tax is, however, a light substitute for the transit and internal customs duties which were levied on various necessaries of life, salt included, until the later days of the East India Company; the mass of the people could not be taxed readily in any other General.

way; and it is both right and expedient that they should bear some part of the cost of administration. The incidence of the tax is light, averaging in 1902–3 only 4·9 annas per head of the population, while the recent reduction has brought the incidence to below 4 annas (say 4*d.*).

Sources of supply.

The total supply of salt to India amounted in 1902–3 to 40 million maunds, of which nearly 70 per cent. was produced in the country and the rest imported by sea. The principal sources of Indian production are the Salt Range and Kohāt mines in the Punjab and the Frontier Province; the Sāmbhar Lake and other salt sources worked by the Government of India in Rājputāna; the salt-soil brine on the borders of the Lesser Rann of Cutch; and the sea-salt factories on the Madras and Bombay coasts and at the mouth of the Indus. During the five years ending with 1902–3, 60 per cent. of the total Indian production consisted of Madras and Bombay sea-salt, 7 per cent. was salt from the Rann of Cutch (known as Barāgara salt), 9 per cent. came from the cis-Indus Punjab mines, and 18 per cent. from the Sāmbhar Lake and other Rājputāna sources.

Methods of production.

The Salt Range mines contain a practically inexhaustible supply. In the Mayo mines there are five or more workable seams of varying thickness, between which lie strata of salt marl. The salt is worked in chambers, excavated in the strata, some of which are 250 feet long, 45 feet wide, and 200 feet high. In Rājputāna salt is extracted by evaporation from brine deposits, the details of the process varying greatly from place to place. On the Bombay and Madras coasts salt is obtained by the solar evaporation of sea-water standing in large shallow pans. The manufacture may be spoilt by unfavourable seasonal conditions, and the production varies considerably from year to year.

Geographical distribution.

Bengal and the greater part of Burma obtain their salt by importation. Salt was formerly produced in Bengal; and a system which provided for the control of manufacture and sale by the agency of the Company's servants was introduced by Clive and Warren Hastings in 1765–80, and survived in a modified form till 1862[1]. The trade in Cheshire salt rose to importance about the year 1835; and thenceforward imported salt gradually ousted the native product in Bengal proper until,

[1] A Government salt monopoly similar to that which existed in Bengal was introduced in the Madras Presidency at the beginning of the nineteenth century. In Bombay salt did not become a considerable source of revenue until 1837.

by 1873-4, local manufacture had ceased and the accumulated stocks had become exhausted. The dampness of the climate and the large amount of fresh water discharged into the Bay of Bengal by the Ganges and the Brahmaputra tell against efficient salt manufacture on the Bengal coast; but the manufacture of salt was not finally abandoned in Orissa until 1898. Nearly half the salt imported into Bengal comes from Liverpool, and the rest principally from Germany, Aden, Maskat, Jedda, Bombay, and Madras. Since the construction of the railway along the east coast, Madras salt transported by land has begun to compete successfully with the imported commodity. Beyond the Indus the Kohāt mines are the exclusive source of supply, and Kohāt salt is used also in Afghānistān and by the frontier tribes. The cis-Indus Punjab is mainly supplied by the Salt Range mines, but in the south-east of the Province salt from the Rājputāna sources is also used. In the United Provinces, Punjab rock-salt and Rājputāna salt compete, and Barāgara salt is also consumed. Rājputāna is supplied mainly from local sources, but also imports Barāgara salt. In Bombay, Barāgara salt is used north of the Narbadā, while Bombay sea-salt supplies the rest of the Presidency and the Western Madras Districts. The numerous east coast factories supply the rest of Madras.

Monopoly and excise systems.

In 1902 nearly half of the salt produced was manufactured under direct Government agency, and the rest by licensees under various excise systems. The principal northern sources, except the Kohāt mines, are worked by Government. In Bombay, Barāgara salt is manufactured by the Government, and sea-salt, as a rule, by private persons. In Madras the two systems exist side by side, 22 out of 67 factories belonging to the Government. The excise system was introduced throughout the greater part of this Province between 1882 and 1886, a few Government factories being maintained to prevent private manufacturers from combining to raise prices; but since 1895 it has been found expedient to revert in part to the Government monopoly system. In Government factories all over India the usual practice is to pay the workers at a fixed price for their produce, the amount of which is estimated at the time of storage. Under the excise systems there is no interference with manufacture and sale beyond such as is necessary to secure payment of the duty. In both Government and excise factories careful systems of guard, storage, weighment, and issue have been introduced and developed.

Preventive measures. Preventive establishments are maintained to guard against illicit traffic in salt removed from natural deposits, or manufactured from salt earth in saline tracts. Supervision is also exercised over the manufacture of saltpetre, and sulphate and carbonate of soda, in Northern India, Bihār, and Calcutta; and the edible salt educed in the refinement of saltpetre is, if excised, taxed at the general rate. There are special provisions against smuggling from French and Portuguese possessions, and arrangements for the protection of the revenue have been made with Native States. The transport of salt by sea from one Indian port to another is subject to control.

Administration. All manufacturing and preventive operations in Upper India are controlled by the Northern India Salt department, which is under the direct administration of the Government of India in the Finance Department. The Governments of Madras and Bombay administer the salt revenue within those Provinces, while a preventive establishment for the salt tracts of Orissa and the Bengal littoral is attached to the Bengal Excise department.

History of the salt duty. Under native administration salt was taxed, in different parts of the country, in varying circumstances and at widely different rates. Along with salt duties, the British administration inherited an immense number of transit duties, levied at intervals along the trade routes under a system requiring elaborate customs arrangements and involving an intolerable hindrance to trade and communication. In 1843 the transit duties, with the exception of those on cotton and sugar, were abolished, and the loss of revenue was partly made up by enhancing the Provincial salt duties. The cotton duties were abolished in 1855 while the salt duties were gradually raised, until, in the period from 1869 to 1877, the salt tax in Lower Bengal was Rs. 3-4 a maund, in the Upper Provinces Rs. 3, in the country beyond the Indus a few annas, and in Madras and Bombay Rs. 1-13 a maund. The salt sources of Rājputāna belonged to the Native States in which they were situated, and duty was levied on their produce when it crossed the frontier. These arrangements could be maintained only by stringent preventive measures. To prevent untaxed Rājputāna salt, and the lightly taxed salt from the south and west, from coming into Northern India, it was necessary to maintain a customs-line extending for nearly 2,500 miles, from Torbela, near Attock on the Indus, to the Sambalpur District of Bengal. The line was guarded by an army of nearly 13,000 officers and men, and consisted, along a large part of its course, of a huge cactus

hedge supplemented by stone walls and ditches[1]. This arrangement naturally hampered trade, and resulted in an undue divergence of the price of salt in different parts of India. In 1870 the Government of India acquired a lease of the Sāmbhar Lake, with a view to increase and cheapen the supply in the United Provinces; and in 1874 more than 760 miles of the eastern portion of the line were abandoned, the trade in this direction having concentrated itself on the railway route. The necessity of changing the whole system was at the same time indicated by Lord Northbrook, and a few years later Lord Lytton's Government was able to acquire the remaining salt sources of Rājputāna and to equalize the duties throughout the greater part of India. Treaties were made with the Native States concerned, and in 1878 the Bengal duty was lowered to Rs. 2–14 a maund and the duty in Northern India to Rs. 2–8. At the same time the duty in Madras and Bombay was raised from Rs. 1–13 to Rs. 2–8 a maund. The whole customs-line was abandoned in 1879, with the exception of a portion along the Indus, maintained to prevent the still lightly-taxed Kohāt salt from being smuggled across the river. In March, 1882, financial conditions being prosperous, the general rate of duty was lowered to Rs. 2 a maund. In 1888 financial difficulties made it necessary to re-establish the Rs. 2–8 rate, which was maintained up to 1903, when prosperity permitted a reversion to Rs. 2, further reduced in 1905 to Rs. 1–8. The rate on Kohāt salt was raised to Rs. 2 per Lahori maund[2] in 1896; and, efficient arrangements having been devised to prevent the cheaper salt from being introduced into cis-Indus territory, the last remnant of the old customs-line disappeared. Burma, where salt pays duty at R. 1 a maund[3], is the only other part of India which does not now conform to the prevailing rate. The change carried out by Lord Lytton's Government was as successful in its financial as in its administrative aspect. While the duty was raised for 58 million people, it was reduced throughout the greater part of India, to the relief of 148 millions. In the three years preceding 1877–8 the average annual consumption was 24·2 million maunds, and the average

[1] It must be remembered, however, that this line took the place of a more annoying system of innumerable customs posts scattered throughout the interior of the country.

[2] This corresponds to about Rs. 1–10 per standard maund; and in 1903 the duty was fixed at Rs. 1–8 per standard maund.

[3] This is the duty levied on imported salt. The local production, which is small and of a primitive character, has hitherto been taxed by fees on the vessels employed in the manufacture of the salt; but a system of taxation on the annual out-turn is now being tried in some Districts.

net revenue 5·8 crores. By 1879–80 the consumption had risen to 27·9 million maunds, and the net revenue to 6·9 crores.

General results.

The figures for 1871 to 1903 given at the end of this chapter show the development of the salt revenue. The average consumption per head has increased steadily from 3·6 to 5 seers: this increasing rate, acting on a growing population and over an extended territory, has given a rise of total consumption from about 23 to 37 million maunds. During the same period the incidence of duty per head of the population has increased from 3·6 to 4·9 annas, or at a slightly lower rate than the increase of consumption. At the same time the retail price has fallen throughout the greater part of India, and is now being still further lowered by the recent reductions of taxation[1]. Most noteworthy of all is the increase in the facilities for bringing salt to the consumer which have been secured during the last thirty years by the abolition of the customs-line and by the development of rail and road communications. At the present day, for example, a trader of the United Provinces wishing to obtain Sāmbhar salt has merely to deposit his money at the nearest treasury, sub-treasury, or appointed railway station or post office, in order to receive his consignment without delay or trouble at any railway station he may choose to name. In Madras the trade in salt is facilitated by a credit system, under which a merchant on depositing securities (with a slight margin for fluctuation of price) receives a six months' credit for payment of duty on which he can draw from time to time. A similar system, but with a shorter credit period, obtains in Bombay.

Excise

General.

The Excise revenue in British India is derived from the manufacture and sale of intoxicating liquors, hemp drugs, and opium, all of them commodities whose use must, in the interest of the people, be restrained within reasonable limits. There is no excise on tobacco, which is largely grown and consumed, nor on betel (*pān-supārī*), which is used everywhere by all classes of the population. The expediency of imposing a tax on tobacco has been considered on more than one occasion; but the idea has been abandoned, partly because it would be difficult to maintain an efficient excise supervision over the widely scattered cultivation of the plant, but chiefly because

[1] The Salt Commissioner, Northern India, in his Report for 1902–3, dated August, 1903, says that at that date an anna (one penny) would on the average purchase 1 lb. 14 oz. of salt in the Punjab and 1 lb. 9 oz. in the United Provinces.

the duty would fall mainly on the classes who are most affected already by the salt tax. The revenue under each head of excise has risen steadily with the increasing prosperity of the lower classes, and the improvement of the excise administration. Its progress is illustrated in the third table at the end of this chapter. The total net revenue from all sources increased from about $1\frac{1}{8}$ crores in 1860–1 to $7\frac{3}{5}$ crores in 1904–5. The excise on opium has been described in the section of this chapter dealing with opium generally; the present section is concerned with intoxicating liquors and hemp drugs.

The Excise department is in most Provinces under the control of a Commissioner who, in some cases, administers also other sources of revenue, such as salt. The Collector is the head of the excise administration in his District. In Madras the Collector is mainly concerned with arrangements for retail sale, distilleries and the preventive establishment being under direct departmental control. In other Provinces preventive arrangements are largely in the hands of the ordinary police.

Intoxicating Liquors

Use of intoxicating liquors in Hindu and Muhammadan times.

On the subject of excise before the days of British rule our information is scanty. But there is enough to prove that the habit of drinking, and even of excessive drinking, was not unknown, and that the native rulers realized revenue therefrom. Dr. Rājendralāla Mitra, in a paper contributed to the Bengal Asiatic Society's Journal[1], showed by many citations from Sanskrit literature, ancient and mediaeval, that spirits and other intoxicating drinks have been extensively used in India at all times and by all classes. While admitting that their use had been condemned by moralists and lawgivers, he proved that rice-spirit was sold and drunk, and used in sacrifices, in the earliest Vedic times; that the leading characters of the Mahābhārata were addicted to strong drink; that the Rāmāyana frequently notices spirit-drinking with evident approbation; that in the time of Kālidāsa drinking seems to have been very common not only among men, but even among women of high rank; that the Purānas abound in descriptions of spirits and of drinking; and that the Tantras afford indubitable proofs of a strong attachment on the part of a large section of the Hindus to over-indulgence in spirituous drinks. There are many references to the use of spirits in Buddhist works, and it was stringently prohibited in the scriptures of that faith. The Korān, too, prohibits drinking, and the prohibition is heeded to

[1] Vol. xlii, pt. i, 1873.

the present day by the orthodox followers of the Prophet. But there is abundant evidence to show that, under the Mughals, the drinking of spirituous liquors was commonly practised even in the capital of the emperors, and that excise (under the name of *ābkāri*) was a common source of revenue to the Muhammadan rulers of India, though their system was of a very rough description. The limitations imposed on the manufacture and sale of liquor, when occasional and limited attempts at total prohibition in a few places had proved unsuccessful, were devised with the sole object of raising revenue and without any design of regulating or controlling consumption. The system in general force was one of farming, the right of manufacture and sale being given to the highest bidder.

Excise policy of British India. The British administration inherited this farming system, but soon began to modify it. Some account will shortly be given of the progress of reform: the general policy has been so to adjust rates and methods as to check the practice of excessive drinking, and at the same time to safeguard the revenue, without encouraging illicit manufacture and traffic by enforcing unduly harsh rules. In other words, the aim has been to secure the maximum of revenue with the minimum of consumption. Whereas in the United Kingdom the proportion of liquor-shops in 1901 was one to about 240 of the population, the proportion in India was only one to 2,400.

Main forms of consumption. The following are the forms of intoxicating liquor chiefly consumed in India: country spirit; fermented palm juice; beer made from grain; country brands of rum, brandy, &c.; locally manufactured malt beer; and imported wine, beer, and spirits. The first three are made for native consumption; the last three are mainly, but by no means exclusively, used by Europeans and Eurasians. The amount of excise revenue derived from each source in the year 1902–3 was approximately as follows, in lakhs of rupees: country spirit, 325; palm juice, 111; grain beer, 17; country rum, &c., 12; malt beer, 4; foreign liquor, 18[1]. The figures are not, however, strictly accurate, because the system of record in different Provinces does not admit of a uniform distinction being drawn between the different items.

Country spirit. Country spirit is the main source of revenue, except in the Madras Presidency, and yields (including Punjab country rum) about two-thirds of the total receipts from liquors. It is usually prepared by distillation from the *mahuā* flower (*Bassia latifolia*),

[1] As explained on page 259, the import duty on foreign liquors is credited to 'Customs.'

molasses, and other forms of unrefined sugar, fermented palm juice, and rice—the last mainly in Bengal, Assam, and Burma. Country spirit is prepared by native methods in Bengal, Assam, the United Provinces, the Central Provinces, Sind, the Frontier Province, and Baluchistān. The ingredients are generally fermented in pots and then distilled in rudely constructed stills. The system is very crude, and the product is apt to contain a considerable percentage of fusel oils. In Madras, Bombay, the Punjab, and Burma manufacture of country spirit or of local brands of rum, whisky, &c., is, as a rule, carried on in highly organized private distilleries with European appliances.

Out-still and central distillery systems.

It has been stated above that the British system of excise grew out of the uncontrolled farming system inherited from the native administration. The first step was the limitation of the number of shops in the area farmed, and the next the establishment of the out-still system, under which only the right to manufacture and sell at a specified shop is granted. The chief objection to both the farming and the out-still systems is that there is no control over the rate of duty per gallon, and it may consequently be to the interest of the farmer or licensee to lower prices and thus encourage the practice of drinking. It therefore became necessary to consider whether a system could not be established under which each gallon of spirit should pay a fixed duty. In some places this was done roughly and imperfectly by limiting the capacity of the out-still. If the still can only produce a certain number of gallons of spirit in the month, and must pay a certain tax monthly, each gallon of spirit must bear a proportionate rate of taxation and cannot be sold below a certain price. The practical difficulty in the way of securing this result is the facility which the licensee possesses for using a still other than that which has been licensed. A far more perfect system is that of the central distillery, in which manufacture and storage are under Government supervision and the liquor pays a still-head duty before issue. Unfortunately the practical experience of years, and the results of many experiments, have shown that it is impossible to enforce this system in all parts of India. In remote and sparsely populated tracts supply by the central distillery system is costly, and illicit manufacture and smuggling are so difficult to discover and suppress that it is practically impossible to put them down in the face of the strong temptation afforded by the high-priced licit liquor. The Provincial Governments have dealt with the subject in different ways suited to the peculiarities of local conditions; and the key to the numerous and complicated systems

of excise which prevail in different parts of British India lies in the fact that they are attempts to combine the farming and fixed duty systems, with the object of securing that every gallon of spirit shall bear a certain amount of taxation in places where it is not possible to work with the fixed duty system in its simplest form. That system is steadily gaining ground, and its operation is greatly facilitated wherever large distilleries are started on the European method. Some form of central distillery system now prevails over the greater part of British India, while the out-still method is still in force throughout Assam[1], over a considerable part of Bengal and the Central Provinces, and in smaller tracts in some other Provinces. It is also used in parts of Burma under stringent restrictions. Measures are now (1906) being taken to improve the quality of the liquor supplied, especially in out-still areas.

Under the out-still system the right to manufacture and sell country spirit at a particular place is, as a rule, sold annually by auction. In some parts of the United Provinces the right is farmed by areas. In Bengal and Burma the licence fixes the capacity of the still.

In Bengal, and in the United and Central Provinces, the central distilleries belong to the Government, but the distillers who use them work their own stills. In these Provinces, and in the Punjab, the right of retail vend is sold separately. The number and position of the shops is fixed by the Collector, and single shops, or sale-rights in a defined area, are sold (as a rule annually) by auction. The system of annual auction sale has these great advantages, that it prevents the growth of vested interests, which might hamper the Government in introducing improvements and reforms, and at the same time affords valuable evidence as to the sufficiency or otherwise of the rate of still-head duty. The general policy is to concentrate manufacture in a few large distilleries, and to facilitate supply by the issue of wholesale licences and the encouragement of bonded warehouses. In Madras the monopoly of manufacture and supply throughout a particular area is disposed of by tender. The manufacturer pays a fixed rate of duty on every gallon of liquor issued from his distillery, and supplies retail vendors at fixed prices. The right of retail vend is disposed of annually by auction, usually by single shops. Throughout the greater part of the Bombay Presidency the monopoly of both manufacture and sale is leased, for given areas, to contractors, who pay

[1] A central distillery system has been started as an experimental measure in the Sibsāgar District of Assam.

a fixed duty on issuing liquor for sale at their shops. The contract is not offered to competition, but the monopolist is selected at the discretion of the Excise Commissioner and the Local Government. He is required to guarantee a minimum return to the Government: in other words, he must pay duty on a certain quantity of liquor whether he sells that quantity or not. The object of this condition is to prevent the contractor from distilling illicitly outside the central distillery, or from entering into collusion with the preventive establishment to pass liquor out of the distillery without payment of duty. Endeavour is made to fix the amount of liquor on which duty is guaranteed at about the quantity for which there is a normal demand; if this is successfully done the risk of illicit practices is in a large measure removed.

Revenue statistics for central distillery areas.

The average incidence of taxation per proof gallon of distillery spirit amounted in 1902–3 to Rs. 4–6–8, of which Rs. 3–4–6 was derived from still-head duty and Rs. 1–2–2 from vend fees. Among the major Provinces the average rate was highest in the Punjab (Rs. 6–1–0) and in Burma (Rs. 6 plus vend fees), and lowest in the Central Provinces (Rs. 3–8–4). The average consumption per thousand of the population in distillery areas varied from 14 gallons in the Punjab and 10 (roughly) in Burma, to 127 gallons in the Bombay Presidency proper.

Toddy or *tāri*.

The sap of the date, palmyra, and coco-nut palms (called *tāri*, corrupted into *toddy* in Southern India) is used as a drink either fresh or after fermentation. The total excise revenue derived from this source in 1902–3 amounted to more than a crore of rupees, of which about 72 per cent. was derived from Madras, 12 per cent. from Bombay, 10 per cent. from Bengal, and 5 per cent. from Burma. In Madras and Bombay the revenue is obtained from a fixed fee on every tree from which it is intended to draw the liquor, thus amounting to a rough duty, and from the sale of the right of retail vend. In Bengal and Burma the sale of shop licences is the sole form of taxation. Retail rights are sold by auction, either for single shops or for defined areas. Fresh sap is taxed in Bombay and Bengal, but not in Madras or Burma.

Rice and millet beer.

The revenue derived from rice and millet beer amounted in 1902–3 to about 6 lakhs in Bengal and 11 lakhs in Burma; elsewhere it is inconsiderable. In Bengal *pachwai* brewed from rice or millet is consumed by aboriginal tribes, and by the lower orders in general, in certain Districts. It is valued both as a stimulant and as food. The bulk of the revenue which

it yields is derived from licences for manufacture and retail sale, which are put up to annual auction, the number and sites of the shops having been previously fixed. Licences for the home brewing of *pachwai* for domestic purposes are granted in certain Districts to the headmen of villages inhabited by aboriginal races, on payment of a fixed fee for each household. In Burma the native beer is brewed from rice. When consumed by certain hill tribes, mostly in Upper Burma, it is exempted from taxation, otherwise the excise system is similar to that in Bengal. It is almost as easy to brew this beer as to make a pot of tea ; and, as the main ingredient is a staple article of food, it is almost impossible to check private manufacture.

Country rum, &c.

Country brands of rum, and so-called brandies and whiskies, are distilled from cane juice, &c., and are coloured and flavoured in various manners. The manufacture is carried on in private distilleries in different parts of India. In the United Provinces and the Punjab such liquor pays duty at the rate of Rs. 4 per proof gallon, in the Central Provinces at Rs. 5, and elsewhere at the customs tariff rate of Rs. 6. The production is subject to such Government supervision as is needed to ensure the payment of the duty. The most important factory is the Rosa distillery at Shāhjahānpur, in the United Provinces, which, in addition to supplying those Provinces, exports considerable quantities to the Punjab, the Central Provinces, Bengal, and other parts of India. In Madras and Bombay, and in the United and Central Provinces, country rum is sold under the same conditions as imported European liquor. In Bengal it may be sold in shops licensed for either country or foreign liquor, and in the Punjab it is treated in the same manner as ordinary country spirit elsewhere. A considerable quantity is supplied to the Commissariat department for the use of the army. Formerly this was issued free of duty, but in 1897 the Government decided that the selling price to troops should be gradually raised until it covered the ordinary duty rate. The enhancement hitherto reached is equivalent to a duty of Rs. 2 per proof gallon.

Malt liquor.

A number of breweries have been established in India, mostly in the hills, for the manufacture of a light beer for European and Eurasian consumption. Owing to local demand by soldiers, the amount of beer thus produced is greater than that imported. A uniform fee of one anna per gallon is levied all over India at the time of issue. Retail sale is usually under a general licence for imported liquors, but in some Provinces additional special arrangements are made.

Foreign liquor is subject to import duty at the tariff rates, the most important of which are Rs. 6[1] per proof gallon on spirit and 1 anna per gallon on beer, and can only be sold under licence. The import duty, which produced 76 lakhs in 1902–3, is credited to 'Customs,' and the sale licence fees to 'Excise.' Licence fees are of three main kinds: wholesale, retail, and special. The last class includes licences for hotels, rest-houses, restaurants, bars, places of amusement, railway refreshment rooms, trains, and steamers. Licences are generally granted at fixed rates, but in certain Provinces (Madras, Bengal, Burma, and the Punjab) some of them are sold by auction. Imported liquor.

Hemp Drugs

The narcotic products of the hemp plant (*Cannabis sativa* or *indica*) consumed in India fall under three main categories which may, generally speaking, be defined as follows: *Gānja* consists of the dried flowering tops of the cultivated female hemp plant which have become coated with resin in consequence of being unable to set seeds freely; *charas* is the name applied to the resinous matter which forms the active principle when collected separately; *bhang* is the name given to the dried leaves of the hemp plant, whether male or female, cultivated or uncultivated. The plant grows wild in many parts of India, especially in the sub-montane tracts of the Himālayas. Classes of hemp drugs.

The use of hemp drugs appears to have been practised in India from time immemorial, and enters into the religious and social observances of the Hindus. The hemp plant is popularly believed to have been a great favourite of the god Siva, and on almost all occasions on which his worship is practised *gānja* is offered to the god and consumed by certain classes of the worshippers. Until recent years little was known in regard to the consumption of hemp drugs for non-medicinal purposes, and their production was subject to definite control and quantitative duties in only a few Provinces. In 1893 a Commission was appointed to inquire into the production of hemp drugs, the effect of their consumption upon the social and moral condition of the people, and the desirability of prohibiting the growth of the plant and the sale of the narcotics. The inquiries of the Commission showed that *bhang* is, almost without exception, harmless when used in moderation, and that its abuse is not so hurtful as intemperate indulgence in alcohol. The excessive use of *gānja* and *charas* is more injurious, but as a rule they are used in moderation and without appreciable Use and excise arrangements.

[1] Raised to Rs. 7 in 1906.

injury. The Commission did not advise prohibition, but recommended a policy of control and restriction, and their suggestions have been carried into effect. The main features of the existing system are restricted cultivation under supervision, storage in bonded dépôts, payment of a quantitative duty before issue, retail sale under licence, and restriction on private possession. No attempt is made to extirpate the spontaneous growth of the hemp plant, and no restriction is placed on the use of the wild plants in the green state or on their cultivation for the manufacture of fibre. Endeavour is made to control the use of *bhang* by prohibition or taxation of cultivation, collection under licence, and transport regulations. The production and consumption of hemp drugs in Burma (except for medicinal purposes) are altogether prohibited, in order to prevent the habit from arising in a Province where it does not at present exist. *Gānja* forms the principal source of hemp drugs revenue in Bengal, Assam, the Central Provinces, Madras, and Bombay, while the consumption of *charas* is mainly confined to Northern India. *Bhang* is consumed in almost all Provinces.

Supply and duty.

The principal authorized sources of *gānja* supply are small areas of cultivation in Rājshāhi (Eastern Bengal) and Nimār (Central Provinces). Madras produces its own supply, and Bombay is supplied partly by cultivation within the Presidency and partly by import from Nimār. The duty on Rājshāhi *gānja* is Rs. 11 a seer in Eastern Bengal and Assam, and also in Bengal (excluding Orissa, where it is Rs. 9 a seer). In the United Provinces the duty at present varies from Rs. 6 to Rs. 9 a seer, according to the description of the drug; but it is intended to levy a uniform rate of Rs. 11. On other sorts of *gānja* the duty is Rs. 4 a seer; but this rate was raised to Rs. 5 in the Central Provinces, Ajmer-Merwāra, and Baluchistān in April, 1906, and similar enhancements elsewhere are contemplated.

Charas is mainly derived from Central Asia. It enters the Punjab by prescribed routes and is stored in Government bonded warehouses. On issue for consumption in the Punj[ab] and certain Native States, it formerly paid a duty of Rs [...] a seer, which was raised to Rs. 6 in 1904. The greater part [...] however, exported in bond to the United Provinces, wher[e it] now pays a duty of Rs. 6, and a smaller quantity to Ben[gal,] where the rate of duty is Rs. 12 a seer.

A duty varying from 8 annas to R. 1 a seer is levied [on] *bhang* in Madras, Bombay, Bengal, and the Central Provin[ces]

In the Punjab, and also now in the United Provinces, there are small import and transport duties and an acreage tax on licensed cultivation. In Assam, where the population is sparse and the wild plant grows freely, the only restriction it has been found possible to impose is a limit on possession without licence.

Licences which cover the retail sale of all forms of hemp drugs are usually sold by auction. In most cases single shops are leased, but sometimes the shops over a defined area are farmed. Distribution is aided by the sale of wholesale vend licences and the establishment of convenient dépôts. Vend licence fees.

In 1902–3 the average consumption of hemp drugs per 1,000 of the population in the larger Provinces varied from 9 seers in the United Provinces, and 7·5 seers in Bombay, to 2·9 seers in the Central Provinces and 1·2 in Madras. The total receipts from hemp drugs taxation have risen from 11 lakhs in 1860–1 to 66 lakhs in 1902–3. The reforms introduced on the report of the Commission have resulted in an appreciable increase of revenue. The average receipts during the three years ending with 1894–5 were about 46 lakhs; during the three years ending with 1902–3 they rose to about 62 lakhs. Consumption and revenue.

Customs

The general customs duty is 5 per cent. *ad valorem* on commodities imported into British India by sea. This tax is levied for fiscal purposes, not for the protection of native industries. In certain cases the general tax is superseded by special duties levied for particular reasons. For administrative purposes a tax is imposed on the import of arms and ammunition; the import duties on liquors need no explanation; the import of opium is taxed at a rate which is, and is meant to be, prohibitive; an import duty on salt forms part of the general system of administering the salt tax, and the proceeds are credited in the public accounts to the head 'Salt'—the same plan has been followed in this chapter. Rice is practically the only commodity on which an export duty is levied. The net customs revenue amounted in 1904–5 to more than 6 crores, the proceeds of the import duties being nearly four times as great as those of the export tax. General.

The scope and rates of the import duties have varied from time to time in accordance with financial needs. Before the Mutiny there was a general tax on imports at the present rate of 5 per cent. In view of the unfavourable financial position, the rate was raised in 1859–60 to 10 per cent., and on some Import duties up to 1876.

important classes of commodities it stood for a time at 20 per cent. In April, 1864, it was lowered to 7½ per cent. Up to 1867 all articles paid duty except such as were specifically exempted; in that year the exemption was extended to a number of minor commodities, and a list was prepared of those remaining liable to duty. In 1875 the whole tariff was revised, the valuation of articles which do not embrace so many varieties as to necessitate the levy of a duty *ad valorem* was amended, and the general rate of duty was reduced to 5 per cent. In 1876–7 the import duties yielded 1·7 crores, about one-half of which was derived from cotton goods.

Abolition of the import duties, 1878–82.

About this time the question of abolishing the customs duties began to be discussed. The Government of India desired to give the fullest play to free-trade principles, and the Lancashire cotton manufacturers, finding a serious competitor in the growing Indian industry, were pressing for the removal of the artificial advantage given to the latter by the 5 per cent. duty. Owing in great measure to the nature of the local fibre, Indian cotton manufactures are confined mainly to the production of coarse goods. In 1878 the first step was taken by the repeal of the duty on cotton goods containing yarns not finer than 30's[1] if similar in character to goods already manufactured in India. It was then laid down that no duty should exist which affords protection to native industry; that the raw material of industry, and articles contributing to production, should be exempt from taxation; and that duty should be levied only on articles which yield a revenue of sufficient importance to justify the interference with trade involved by the machinery of collection. In conformity with these principles, railway material was exempted from duty and twenty-six minor heads were removed from the list. As regards cotton goods, there was little essential difference between the cloth which had been exempted and large classes of cloth having different designations which remained subject to duty, and the change in the tariff did not therefore produce much result. In the following year (1879) a further step was taken, and all cotton goods containing yarn not finer than 30's were exempted, at an estimated loss of 20 lakhs. These exemptions foreshadowed the total abolition of the customs duties as soon as the Government could afford to adopt the measure. The production and consumption of non-dutiable classes of cotton goods were stimulated at the expense of those still paying duty, and, as

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regards other commodities, it became a question whether it would be worth while to keep up the customs arrangements when the principal source of revenue had been exempted. In 1882 the prosperous condition of the finances enabled the Government to abolish the rest of the cotton duties and the whole of the remaining general import duties. Until 1894 no further import duties were imposed, with the exception of a duty of half an anna per gallon on petroleum, first levied in 1888.

Reimposition of the import duties, 1894-6.

In 1894 the heavy burden thrown on the Government of India by the fall in exchange made it necessary to consider how it could increase its resources. Lord Herschell's Committee, reporting in May, 1893, on the currency question, had expressed the opinion that, of all the suggested methods of adding to the revenue, the reimposition of the import duties would excite the least opposition. In framing the budget for 1894-5, the Government of India found that, after making all possible reductions in expenditure, it had to face a deficit of 168 lakhs. It was accordingly determined to double the tax on petroleum and to reimpose a general duty of 5 per cent. on imports. These two sources were estimated to yield an additional revenue of 120 lakhs. Cotton yarns and fabrics were, however, excluded from the list of dutiable articles, and this exemption gave rise to great opposition in India. The Secretary of State, under whose orders it had been made, agreed to receive a further representation on the subject if, after a sufficient interval, the financial position was found not to have improved. By December, 1894, it had so far deteriorated that a further addition to the revenues of at least a crore of rupees was needed to restore equilibrium. It was then decided to reimpose the cotton duties, combined with an excise duty in India which would deprive the tax of any protective character. Cotton yarns and manufactures were made dutiable at the general rate of 5 per cent., and an excise duty at the same rate was imposed on all cotton yarns of 20's produced in mills in British India. The excise duty was confined to cotton produced in mills, as it would have been difficult and inexpedient to tax the hand-loom industry which is carried on in villages all over the country. The Lancashire manufacturers represented, however, that these arrangements had not made the duty non-protective. A certain quantity of yarns of counts not exceeding 20's, and of fabrics woven from such yarns, were exported to India; and in the case of woven goods made from excisable counts of yarn the Indian mills paid only on the yarn

value of the goods, whereas imported articles were charged on the value as completed. To meet these objections, cotton twist and yarns of all kinds were exempted from customs and excise duty in February, 1896, and a duty at the rate of 3½ per cent. was imposed on woven goods of all counts, whether imported or manufactured in Indian mills. This change involved some loss of revenue. In 1895–6 the customs duties on cotton yielded 116 lakhs, and in the five succeeding years an average of only 87 lakhs (95 lakhs in 1902–3). The excise duty on cotton goods amounted to 6 lakhs in 1895–6, and to 18 lakhs in 1902–3. There has been a satisfactory growth of both manufacture and trade, notwithstanding that the former has been hampered by the continued prevalence of plague in Bombay, the chief seat of the industry.

Goods exempted, or charged at low rates.

The general tariff introduced in 1894 was based on that of 1875, subject to some alterations and to a revision of the valuations. The Government did not consider it expedient to exempt minor articles, as was done in 1878. The payment of duty is only one item in the formalities that attend the process of importation, and the shipping documents relating to goods have to follow the course of a fixed routine. The additional work caused by customs assessment is, therefore, less than would at first sight appear. The most important exemptions from the general duty are food-grains, machinery, railway material, and coal, while most classes of iron and steel are taxed at the low rate of 1 per cent.

Countervailing duty on sugar.

With effect from March, 1899, a countervailing duty was imposed on bounty-fed beet sugar from foreign countries. A rapid and large increase of such importations, especially from Germany and Austria, was believed to be seriously affecting the Indian sugar industry. The duty was framed with the intention of countervailing bounties paid, directly or indirectly, by foreign Governments; but though it produced an appreciable revenue, amounting in 1901–2 to 37 lakhs, it did not stop the influx of cheap European sugar. The manufacturers in the chief beet-growing countries of Europe obtained such high prices in their home markets, owing to the operation of protective duties and rebates on export, that they were able to sell their surplus stocks at prices considerably below the cost of production. Further duties were therefore imposed, in 1902–3, on sugar imported from countries which, by their protective system, rendered possible the formation of trade combinations to manipulate the price of sugar. The immediate result of these duties was to diminish sugar imports from Europe, and

to divert the trade previously carried on with India by Germany and Austria to other countries which did not come within the scope of the new legislation. The imports of beet sugar in 1902-3 fell to about half what they had been in 1901-2, while the imports of cane sugar, which comes mostly from Mauritius, Java, and China, increased by more than 40 per cent.

In December, 1903, orders were issued remitting the countervailing duties chargeable on sugar produced, after August of that year, in countries which have limited their direct or indirect bounties on sugar, and their protective duties, to the minimum permitted by the Brussels Convention of 1902.

Revenue from the import tariff.

Table IV at the end of this chapter shows the amount of revenue derived from the principal imports. Cotton piece goods now yield more than one-fifth of the whole, and next in order come liquors, metals, general manufactured articles, petroleum, and sugar.

In 1892-3, before the reintroduction of the general duty, the total revenue from import duties was 82 lakhs. In 1894-5, after the reimposition, it was 282 lakhs; in the following year, with the addition of cotton duties, it rose to 388 lakhs; in 1896-7, with the altered cotton arrangements, it fell to 347 lakhs; and in 1902-3 it had again risen to 426 lakhs.

Export duties.

Until 1860 the bulk of the export trade was taxed, and in that year the general rate was 3 per cent. *ad valorem*. Between 1860 and 1867 many articles were exempted; and in 1874 the list comprised only cotton goods, grain, hides, indigo, lac, oils, seeds, and spices. In 1875 it was still further reduced to oil, rice, indigo, and lac. In thus limiting the tariff regard was given to the principle that an export duty may do serious injury to trade by fostering foreign competition. In 1880 the duty on lac and indigo was remitted, and from that date rice has been practically the sole source of export revenue[1]. It is taxed at three annas a maund (3*d.* per 82 lb.), and the collections vary according to the out-turn of the Indian harvest, with a tendency to increase. The export is mainly from Burma.

Assessed Taxes

General.

The present income-tax was introduced in 1886, and yielded in 1902-3 a net revenue of 207 lakhs, reduced to 186 lakhs in

[1] In 1903 a trifling duty was imposed, at the request of the tea industry, on exports of that product by sea, in view to the proceeds being applied, by a representative committee of the industry, to increasing the consumption and sale of Indian tea. In respect of this duty, which follows a Ceylon precedent, the Government acts merely as a collecting agency.

1904–5 by the exemption of small incomes. Taxes of a similar nature have been levied from time to time, and the amount derived from them has varied according to the particular regulation in force.

Direct taxation under native rule.

Direct taxation was well-known to the native governments which formerly ruled in India. The imposts varied in name and conditions, but depended in general on an intimate acquaintance with the circumstances of the non-agricultural families who paid the tax. These direct taxes were, as a rule, relinquished by the British administration, with a host of miscellaneous octroi and transit duties, at the time when the salt tax was raised (1843). Among the few old taxes retained was the *pandhāri* tax in the Central Provinces, which was finally abolished in 1902–3. This impost was a form of house tax, levied by the Marāthās from petty artisans and shopkeepers and non-agriculturists. It was collected with the land revenue until 1860–1, when it was converted into a tax at fixed rates on small non-agricultural incomes, supplementary to the general income tax.

Income tax of 1860–5.

Apart from such local taxes, the first general income tax was levied in 1860, to relieve the financial difficulties which beset the country after the Mutiny. An Act was introduced in that year, on the English model, to have effect for a period of five years. The tax was levied on all incomes exceeding Rs. 200 per annum arising from property, professions, trades, and offices, and included incomes derived from land. The rate was 2 per cent. on incomes between Rs. 200 and 500, and 3 per cent. on larger incomes, with an additional 1 per cent. to be used for local public works. In 1862 the minimum taxable income was raised to Rs. 500, and in 1863 the rate was reduced to 3 per cent. The tax produced on an average 154 lakhs a year.

Licence and income taxes of 1867–73.

As intended, this Act ceased to operate in 1865, but the financial position would not permit of direct taxation being abandoned. In 1867 an Act was passed imposing a licence tax on professions and trades. The tax was non-agricultural, but extended to all persons exercising a profession or trade whose income or profits were not less than Rs. 200 per annum. The assessees were divided into classes, paying at fixed rates amounting to 2 per cent. on the minimum income of each class. The total collection yielded 65 lakhs. The time was one of great financial embarrassment, the ordinary expenditure exceeding the ordinary income in several successive years. The area of taxation, and the rate, were accordingly varied

from year to year to meet the exigencies of the moment. In 1868–9 some relief was given under a new 'Certificate Act' by which the minimum assessable income was raised to Rs. 500, and the fixed rates were reduced to $1\frac{3}{5}$ per cent. on the minimum income of each class. The tax then produced about 51 lakhs. In 1869 a considerable deficit was anticipated, and the 'certificate' tax was therefore converted into a general income tax, including agriculturists in its scope. The limit of assessable income was not changed, and the fixed rates amounted originally to a little over 1 per cent. of the minimum income in each class. In order to increase the proceeds the assessment was made more rigorous than before. Later in the same year the financial outlook became worse, and the assessment was generally raised by 50 per cent. It yielded a total of 111 lakhs, the number of private assessees being about 521,000. In 1870, when a still greater excess of expenditure over income was anticipated, the fixed rates were raised to about $3\frac{1}{8}$ per cent. on the minimum of each class up to Rs. 2,000, an exact $3\frac{1}{8}$ per cent. being levied on incomes above that limit. But by reaction from the too rigorous assessment of the previous year the number of assessees fell to 386,000, and the tax at the enhanced rate produced only 207 lakhs. In 1871–2 the minimum taxable income was raised to Rs. 750, and a general rate of 2 pies in the rupee, or a little over 1 per cent., was levied, the fixed rates on incomes below Rs. 2,000 being abandoned. Under these conditions the tax yielded 82 lakhs. In the following year the taxable limit was raised to Rs. 1,000, other incidents remaining as before, and the total collections fell in consequence to 58 lakhs. At the end of 1872–3 the financial position was so greatly improved that the Government was able to announce that the tax would not be renewed. The experiment had been unfortunate and was the cause of considerable discontent. The people could not readily understand the unfamiliar and somewhat complicated arrangements of a European income tax, and some oppression and extortion were practised by the temporarily engaged assessors and collectors. The constant variation of rates to suit the financial condition of the moment was, moreover, unsuitable to the conditions prevailing in India.

Licence tax of 1877–86.

No further direct taxation was imposed until it was decided, in 1877, to levy a licence tax on traders and artisans to meet a portion of the annual expenditure to be incurred as insurance against famine. In 1878 the Government of India passed an Act for this purpose for the United Provinces and the Punjab,

and the Local Governments adopted similar Acts for Bengal, Madras, and Bombay. Certain modifications were made in 1880, after which the general position was as follows. The tax extended to all incomes derived from non-agricultural trades and dealings; but professions, including Government service, were not taxed. Under the Acts of 1878 the minimum limit of taxable income was in general Rs. 100 or Rs. 200 per annum. This was found to be too low, and in 1880 a general limit of Rs. 500 was imposed. The assessees were divided into classes paying fixed rates, the system of classification varying in different Provinces, but subject to the proviso that the tax should never exceed 2 per cent. on income. The minimum tax was thus in all cases Rs. 10; the maximum was fixed at Rs. 500 everywhere except in Bombay, where it was Rs. 200. These arrangements remained in force until 1886. The administration was better and more regular than under the Acts of 1860 to 1873, and the people became accustomed to the tax. The financial results were not unsuccessful. In 1878–9 the total collection amounted to 90 lakhs; the changes made subsequently lessened the proceeds, which varied between 50 and 52 lakhs during the years 1882–3 to 1885–6. The system was, however, marred by considerable defects. The want of uniformity in classification and rates was not justifiable, the exclusion of the official and professional classes gave rise to accusations of partiality, and the low maximum caused the tax, especially in Bombay, to press with undue severity on the poorer classes.

Income tax of 1886.

Various suggestions for reform were discussed; but the Government, warned by previous experience, was reluctant to meddle with a system that was working reasonably well, and no action was taken until a falling exchange and increased military expenditure made it necessary to have recourse to fresh taxation in 1886–7. The licence tax was then converted into a general income tax by an Act applying to all India, which still remains in force. All sources of non-agricultural income were taxed. They were divided into (1) salaries and pensions, (2) profits of companies, (3) interest on securities, and (4) other sources. A general rate of 5 pies in the rupee (a little more than $2\frac{1}{2}$ per cent.) was levied on all incomes over Rs. 2,000 per annum; incomes between Rs. 500 and 2,000 derived from salaries and interest on securities were taxed at the rate of 4 pies (a little over 2 per cent.), and similar incomes derived from other sources at fixed rates according to classes. There were six of these classes: for the three lowest the fixed rate was

equal to 2 per cent. on the minimum income of the class, and for the others it was slightly in excess of 2 per cent. of the maximum. Incomes below Rs. 500 were not assessed, with the result that the tax is collected from a very small proportion of the community. Incomes derived from land and agriculture were exempted, because of the corresponding burdens placed on them under the system of taxation for famine purposes imposed in 1877–8; but the discretion of the Government to tax incomes derived from land in the future has been left unfettered. Charities and religious endowments, and soldiers whose pay is less than Rs. 500 a month, are free from the tax, and there are some other minor exemptions. On the whole the Act has worked well and smoothly, the assessment being made outside the Presidency towns by the ordinary District staff, sometimes reinforced, as in the United Provinces, by unofficial assessors; and the evils of the earlier system have been avoided, while due facilities are allowed for appeal.

In 1903 the favourable condition of the finances permitted the exemption from the tax of incomes between Rs. 500 and Rs. 1,000 per annum, a measure which is calculated to free about 315,000 persons formerly assessed, out of a total number of about half a million. The loss of revenue sustained through this measure in 1903–4 was about 29 lakhs, or approximately one-seventh of the previous yield of the tax.

The progress of the tax between 1886–7 and 1902–3 is Statistics. shown in the table at the end of the chapter. The receipts have risen steadily from year to year, the total increase being nearly 60 per cent., while the number of assessees has increased by 32 per cent. Of the four classes of income, salaries and pensions (mostly of Government servants) yielded in 1900–1 nearly 30 per cent. of the whole; profits of companies nearly 7 per cent.; interest on securities about 5 per cent.; and 'other sources' nearly 59 per cent. There have been but trifling variations in these proportions since the Act came into operation. Cotton-spinning, railway and banking companies, are the main sources of receipt under the second head. Under 'other sources' the principal classes are money lenders and changers (29 per cent.), general merchants (8 per cent.), grain merchants (6 per cent.), piece goods merchants, house-owners, and legal practitioners (each about 5 per cent.), and bankers (about 4½ per cent.). Prior to the recent exemption of incomes between Rs. 500 and Rs. 1,000, more than 84 per cent. of the assessees were in classes with incomes of less than Rs. 2,000, but these classes returned less than 35 per cent. of the total collections. The

total of the incomes on which the tax was paid amounted in 1900–1 to about 78 crores. In Bombay every 209 persons produce one with a non-agricultural income of not less than Rs. 500; in Madras the figure is 417; in the Punjab 444; in Bengal, 580; in the United Provinces, 637; in Assam, 681; and in the Central Provinces, 1,077. Taking the average incidence of taxation on the assessees, Bombay is again first with Rs. 44 per head; then come Bengal (Rs. 41), the Central Provinces (Rs. 39), Assam (Rs. 35), the United Provinces (Rs. 34), Madras (Rs. 30), and the Punjab (Rs. 29). About 47 per cent. of the Bombay, more than 43 per cent. of the Bengal, and about 20 per cent. of the Madras collections are derived from the Presidency towns.

The difference between the commercial wealth of the United Kingdom and of India is forcibly brought out by the fact that in the former country every 1*d.* per £ of income tax produces about £2½ millions, while the gross collections of what is practically a 6*d.* income tax in India yielded, before the recent remission of taxation, only about £1,400,000. It must be remembered, of course, that the assets of India are mainly agricultural, and that agricultural profits are exempt from the tax.

Capitation tax and *thathameda* in Burma.

In Burma local taxes inherited from the native administration take, in great measure, the place of the income tax, which is confined to Government servants and railway employés, the whole of Lower Burma[1], and the town of Mandalay in Upper Burma. In 1900–1 Rangoon yielded 46 per cent. of the total Burma collections. Lower Burma has a special capitation tax which is, in general, paid by males between the ages of 18 and 60, at the rate of Rs. 5 for married men and Rs. 2½ for bachelors and widowers. It is not leviable on any person paying income tax, and it yielded 48 lakhs in 1902–3. In Upper Burma the *thathameda* is a rough income tax, levied on both agriculturists and non-agriculturists. The amount is usually fixed by lump village assessment, at the rate of about Rs. 10 a household. Hereafter, as the Burma Districts are re-settled, the *thathameda* will be reduced, and superseded by land revenue and an income tax in large centres. The receipts in 1902–3 amounted to 50 lakhs. Both capitation tax and *thathameda* are credited in the accounts under the head of land revenue[2].

[1] Up to April, 1905, income tax was levied only in selected towns and villages of Lower Burma.

[2] Other important sources of Miscellaneous Revenue are Stamps and Registration, but these have been sufficiently referred to in chap. vi (*ante*, p. 174).

Provincial Rates

These rates, which exclude municipal taxes, are levied chiefly for the construction and repair of roads, the up-keep of schools and dispensaries, village sanitation, and other local expenditure. They are generally assessed on the annual 'assets' or rent value of land, which is calculated variously in different Provinces, according to the nature of the prevailing system of land tenure. In 1904-5 the net receipts amounted to 418 lakhs, of which nearly half was administered by local boards.

History of the land cess.

Acts authorizing the levy of local cesses on the land rental were first passed in Bombay and Madras between 1865 and 1869. This principle was extended in pursuance of Lord Mayo's scheme of financial decentralization. In 1871 Acts were passed levying a similar cess in Bengal, the United Provinces, and the Punjab. In the Punjab and Oudh cesses for roads, schools, and the District post, assessed at the time of the land revenue settlement, were continued side by side with the new general cess. Similar settlement cesses were levied in the Central Provinces, in Burma (from 1865), and in Assam (from 1874). The total Provincial rates, consisting for the main part of the general land cess, amounted to 184 lakhs net in 1872-3 and to 182 lakhs net in 1876-7.

In 1877-8 further local taxation was imposed in several Provinces, to make up the additional revenue needed to carry out the famine insurance policy of Lord Lytton's Government. In Bengal a public works cess, at a maximum rate of half an anna in the rupee, was established, in addition to the road cess of the same amount previously levied. The existing cesses were raised in the United Provinces, the Punjab, and the Central Provinces; and in Assam a general cess was substituted for the settlement cess. A similar measure had been carried out in Burma in 1876. No addition was made to the rate in Madras and Bombay, as those Provinces were at the time actually suffering from famine. In 1879-80 the total collection from the general land cess amounted to 233 lakhs.

The extension of the system of local self-government carried out by Lord Ripon's Government in 1883-4 affected the control and disposal of the funds; but the new Acts did not in general materially alter the rates at which the cesses were levied, though in some Provinces the general and settlement cesses were combined into a single cess.

In 1905 financial prosperity enabled the Government of India to give substantial assistance to local funds. In the first

place, the extra famine cesses imposed in 1877–8 in the United Provinces, the Punjab (including the Districts transferred to the North-West Frontier Province), and the Central Provinces were abolished; and, secondly, grants from Imperial revenues were made to all local boards in India, to an extent approximately equal to one-fourth of their income from the land cess.

Existing rates; their assessment and collection.

At the present time a general cess on the annual value of land is levied throughout British India for local purposes at a rate which is in general equal, or nearly equal, to one anna in the rupee[1]. The rate actually levied is usually fixed by the Local Government; but in Madras, and in Bengal in so far as the road cess is concerned, it is determined, subject to certain conditions, by the District boards. The arrangements for assessment are somewhat complicated, inasmuch as they vary with different land revenue systems. The main principles are roughly as follows. In ryotwāri areas the annual value of the land is taken to be the revenue payable by the cultivators to the Government. In the zamīndāri tracts of the United Provinces and the Punjab the annual value of the land is calculated at twice the land revenue, this proportion being fixed with reference to the share of the net 'assets' or rental paid to the state by the landholders. In permanently settled estates the land revenue bears little relation to the 'assets,' and the local rates are therefore assessed on a periodical valuation of the rental, or by a rate per acre. In some Provinces the landlord is entitled to recover a portion of the cess from his tenants. The cess is in general collected with the land revenue, and the cost of collection is deducted before the proceeds, or the assigned portion of them, are made over to the local boards. Nearly four-fifths of the total cost is incurred in Bengal, where it is necessary to employ a special revaluation establishment to deal with permanently settled estates.

Their administration.

In Madras, Bombay, and Assam the whole net collections are administered by local boards. In Bengal the road cess is credited to the District boards and the public works cess to general revenues, but under recent orders of the Local Government a portion of the latter is also granted to the local boards. In the Province of Agra a portion of the proceeds of the rate is devoted to the maintenance of the village watch, which in other parts is a charge upon special contributions assessed and collected apart from the general cess. In the Punjab four-

[1] In Madras a District board may, with the sanction of the Local Government, increase this rate by 3 pies in the rupee for the purpose of constructing local railways or tramways.

fifths of the cess are assigned to the local boards, and the Local Government may reserve one-fifth for any of the purposes of the District Boards Act. In the Central Provinces the general rate introduced in 1878 (one per cent. on the rental) is administered by the Chief Commissioner, and the roads and school cesses are made over to the local boards.

Village servants' cesses.

Apart from the land cess imposed for purposes of local self-government are the rates levied, outside permanently settled estates, for the remuneration of the village watchman and headman. 'The support of this village staff has been a charge on the community from time immemorial. In the Central Provinces and Bombay watchmen are still remunerated, according to the ancient custom, by grants of land and by fees collected by them directly from the people. Elsewhere they are supported by the proceeds of a cess to which, in some Provinces, non-agriculturists not unreasonably subscribe. The headman is a functionary of more importance in ryotwāri than in zamīndāri villages; and except in Madras, Sind, and Coorg, his remuneration in ryotwāri Provinces has been accepted in whole or in part as a charge upon the land revenue which he collects. In the zamīndāri Provinces (the United Provinces, Central Provinces, and the Punjab) the proprietor of a village is also its headman; but where there are several sharers in the proprietorship of a village, one or more of their number represent the remainder, and have a right to a commission on the revenue payable through them, the rate being generally 5 per cent. This represents a communal arrangement of very long standing [1].' The village accountant's functions have been considerably modified by his employment in the maintenance of a complex system of agricultural statistics for his village. His remuneration had been usually derived from a cess on land, supplemented in some places by grants from the public revenues, but in 1906 the cess was abolished everywhere, with minor exceptions.

District post cess, &c.

In Bengal a small cess was levied under an Act of 1862 for the maintenance of a District post which transmitted papers between the magistrates and the police. A similar establishment was paid in some Provinces from small deductions from the general land cess, and other petty appropriations were made to meet the cost of normal schools, the establishment in Government offices for local purposes, and the like. These were all abolished in 1906.

[1] Resolution of the Government of India, dated January 16, 1902, on the subject of land revenue assessment.

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TABLE I. OPIUM

(*In lakhs of rupees*)

	1850-1.	1860-1.	1870-1.	1880-1.	1890-1.	1900-1.	1902-3.
BENGAL PROVISION OPIUM *:							
Receipts	3,09	4,20	5,64	7,95	6,13	6,40	5,75
Charges	1,03	88	2,01	2,03	2,18	2,68	2,47
Net Receipts	2,06	3,32	3,63	5,92	3,95	3,72	3,28
MĀLWĀ EXPORT OPIUM:							
Receipts	70	2,48	2,40	2,53	1,75	1,25	1,00
Charges	1	4	...	...	...	...	1
Net Receipts	69	2,44	2,40	2,53	1,75	1,25	99
TOTAL—BENGAL AND MĀLWĀ:							
Revenue	3,79	6,68	8,04	10,48	7,88	7,65	6,75
Expenditure	1,04	92	2,01	2,03	2,18	2,68	2,48
Net Revenue	2,75	5,76	6,03	8,45	5,70	4,97	4,27
Revenue from opium credited under Excise	...	16	36	74	97	1,03	1,10

* The cost price of opium sold in the Excise department is included in the receipts, and the corresponding expenditure in the charges.

TABLE II. SALT

(*In lakhs of rupees and of maunds*)

		1871-2.	1880-1.	1890-1.	1900-1.	1902-3.
Revenue	Rs.	5,97	7,12	8,52	8,95	9,28
Charges	"	56	90	88	89	90
Net Revenue	"	5,41	6,22	7,64	8,06	8,38
Consumption	Mds.	228	274	333	358	369
Average consumption per head of the population *	seers	3·6	4·3	4·6	4·9	5·0
Incidence of duty per head of the population *	annas	3·6	4·2	4·4	4·7	4·9
Average retail price of salt per maund in Rs.:—		1871.	1880.	1890.	1900.	1902
Madras		†	3·2	3·2	3·2	3·2
Bombay		2·7	3·5	3·4	3·5	3·3
Bengal		5·0	4·5	4·1	3·8	3·8
Agra		4·6	4·2	3·7	3·7	3·7

* The figures here include the population of all India, as the bulk of the inhabitants of the Native States consume British salt. A few States have, however, some local manufacture, and to this extent the average consumption and incidence of taxation are slightly more than above indicated. The difference has, however, been very trifling since the acquisition of the Rājputāna salt sources.

† Not available.

TABLE III. Excise

(In lakhs of rupees)

	1860-1.	1870-1.	1880-1.	1890-1.	1900-1.	1902-3.
Intoxicating liquors	91	1,56	2,12	3,49	4,27	4,86
Opium and its preparations	16	36	74	97	1,03	1,10
Hemp drugs	11	22	30	42	59	66
Miscellaneous	...	...	3	4	2	2
Total	1,18	2,14	3,19	4,92	5,91	6,64
Charges	6	10	10	18	31	35
Net revenue	1,12	2,04	3,09	4,74	5,60	6,29

TABLE IV. Customs

(In lakhs of rupees)

	1892-3.	1894-5.	1897-8.	1900-1.	1902-3.
SPECIAL IMPORT DUTIES.					
Arms, ammunition, and military stores	2	2	2	1	2
Liquors	60	61	66	69	76
Petroleum	20	*	*	49	53
Sugar (countervailing duty)	...	...	...	21	11
GENERAL IMPORT DUTIES.					
Articles of food and drink	...	27	37	15	14
Sugar (ordinary duty)	...	†	†	29	25
Chemicals, drugs, narcotics, and dyeing and tanning materials	...	9	11	11	12
Cotton manufactures	...	38	78	93	95
Metals and manufactures of metals	...	55	65	33	69
Oils	...	32	55	2	1
Other raw materials and manufactured articles	...	58	53	68	68
Total imports	82	2,82	3,67	3,91	4,26
Excise duty on cotton goods	...	1	11	12	18
Export duty	73	89	71	83	1,23
Land customs and miscellaneous	1	5	6	7	9
Grand total	1,56	3,77	4,55	4,93	5,76
Charges	17	19	22	26	25
Net revenue	1,39	3,58	4,33	4,67	5,51

* Included under 'Oils.' † Included under 'Articles of food and drink.'

TABLE V. ASSESSED TAXES. (Income Tax)

(*In lakhs of rupees*)

	1886-7.	1890-1.	1895-6.	1900-1.	1902-3.
Collections	1,36	1,62	1,83	1,98	2,12
Charges	8	5	4	4	5
Net collections	1,28	1,57	1,79	1,94	2,07

TABLE VI. PROVINCIAL RATES

(*In lakhs of rupees*)

	1872-3.	1876-7.	1879-80.	1890-1.	1900-1.	1902-3.
Land cess	Details not available.		2,33	2,62	2,97	3,14
Village service and *Patwāri* cess			50	77	73	81
District post cess			3	4	4	5
Miscellaneous			2	6	10	12
Total	1,89	1,93	2,88	3,49	3,84	4,12
Charges	5	11	5	6	5	7
Net receipts	1,84	1,82	2,83	3,43	3,79	4,05

CHAPTER IX

LOCAL AND MUNICIPAL GOVERNMENT

Villages and Cities in Ancient India

General characteristics of the Indian village community.

AMONG the phenomena which India presents to the student of social institutions none are more interesting and important than its village communities. The constitution and form of these have not been exempt from the general laws of progress and decay, but the characteristic features of Indian village life have been handed down with extraordinary pertinacity from a distant past. This persistence has riveted the attention, and impressed itself on the imagination, of many observers of the Indian social structure. Writing of the village communities in 1830, Sir Charles (afterwards Lord) Metcalfe said :—

'They seem to last where nothing else lasts. Dynasty after dynasty tumbles down ; revolution succeeds revolution; Hindu, Pathān, Mughal, Marāthā, Sikh, English, are all masters in turn ; but the village communities remain the same. In times of trouble they arm and fortify themselves : a hostile army passes through the country : the village communities collect their cattle within their walls, and let the enemy pass unprovoked. If plunder and devastation be directed against themselves, and the force employed be irresistible, they flee to friendly villages at a distance ; but when the storm has passed over, they return and resume their occupations. If a country remain for a series of years the scene of continued pillage and massacre, so that the villages cannot be inhabited, the scattered villagers nevertheless return whenever the power of peaceable possession revives. A generation may pass away, but the succeeding generation will return. The sons will take the places of their fathers ; the same site for the village, the same positions for the houses, the same lands will be reoccupied by the descendants of those who were driven out when the village was depopulated; and it is not a trifling matter that will drive them out, for they will often maintain their post through times of disturbance and convulsion, and acquire strength sufficient to resist pillage and oppression with success. This union of the village communities, each one forming a separate little state in itself, has, I conceive, contributed more than any other cause to the preservation of the people of India through

all the revolutions and changes which they have suffered, and is in a high degree conducive to their happiness, and to the enjoyment of a great portion of freedom and independence[1].'

The typical Indian village has its central residential site, with an open space for a pond and a cattle stand. Stretching around this nucleus lie the village lands, consisting of a cultivated area and (very often) grounds for grazing and wood-cutting. The arable fields have their several boundary marks, and their little subdivisions of earth ridges made for retaining rain or irrigation water. The inhabitants of such a village pass their life in the midst of these simple surroundings, welded together in a little community with its own organization and government, which differ in character in the various types of villages, its body of detailed customary rules, and its little staff of functionaries, artisans, and traders. It should be noted, however, that in certain portions of India, e.g. in the greater part of Assam, in Eastern Bengal, and on the west coast of the Madras Presidency, the village as here described does not exist, the people living in small collections of houses or in separate homesteads.

Different types of villages. The origin and characteristic features of the ordinary Indian villages have been carefully examined of late years by Mr. B. H. Baden-Powell, who divides them into two main classes, viz.:—

The ryotwāri village. (1) The 'severalty' or ryotwāri village, which is the prevalent form outside Northern India. Here the revenue is assessed on individual cultivators. There is no joint responsibility among the villagers, though some of the non-cultivated lands may be set apart for a common purpose such as grazing, and waste land may be brought under the plough only with the permission of the revenue authorities and on payment of assessment. The village government vests in a hereditary headman, known by an old vernacular name, such as *pātel* or *reddi*, who is responsible for law and order and for the collection of the Government revenue. He represents the primitive headship of the tribe or clan by which the village was originally settled.

The joint village. (2) The joint or landlord village, the type prevalent in the United Provinces, the Punjab, and the Frontier Province. Here the revenue was formerly assessed on the village as a whole, its incidence being distributed by the body of superior proprietors, and a certain amount of collective responsibility still as a rule remains. The village site is owned by the proprietary body, who allow residences to the tenantry, artisans,

[1] Quoted in Elphinstone's *History of India*, Book ii, chap. 2.

traders, and others. The waste land is allotted to the village, and if wanted for cultivation is partitioned among the shareholders. The village government was originally by the *panchāyat*[1] or group of heads of superior families. In later times one or more headmen have been added to the organization to represent the village in its dealings with the local authorities; but the artificial character of this appointment, as compared with that which obtains in a ryotwāri village, is evidenced by the title of its holder, which is generally *lambardār*, a vernacular derivative from the English word 'number.' It is this type of village to which the well-known description in Sir H. Maine's *Village Communities* is alone applicable, and here the co-proprietors are in general a local oligarchy with the bulk of the village population as tenants or labourers under them. Their position is, as a rule, due to descent, with the equal rights afforded by the Hindu joint family system, (*a*) from an original superior proprietor who obtained that position by grant from a native ruler, or in later times as a revenue farmer or by purchase; or (*b*) from a body of men connected by ties of blood or association who originally colonized the village or superimposed themselves on the earlier inhabitants.

Village officers and servants.

In whatever way the village organization arose, it incorporated the customary staff of functionaries, artisans, and traders, all of whom, it must be remembered, exercise their vocations as a matter of caste and heredity, and were originally remunerated by lands or fixed fees for their services to the community and to members.

'Under both forms [of village] the people require the aid of certain functionaries, artisans, and traders. They need a village messenger and night-watch, as well as some one to guard the crops; if it is an irrigated village probably some one will be required to distribute the water, to stop this channel and open that, when, according to the village custom of sharing the water, the different parties have had their due share. A potter will be required to furnish the simple household utensils, or to make waterpots where the Persian wheel is used in wells. A seller of brass or copper pots will also be found in larger villages. A cobbler will make the village shoes and the plough harness or gear. A carpenter will fashion the agricultural implements and help in the house-building. A money broker will be needed, and some one to

[1] *Panchāyat* comes from *pānch*, 'five,' but the body so called is not limited to this number. Many castes in towns and villages have also their own *panchāyats*, which deal with business, social, and religious matters common to the caste.

sell tobacco, drugs, salt, flour, spices, oil, and other necessaries of life. Sometimes a dancing girl is attached to the village; always a barber, who is the agent for carrying marriage proposals, besides his functions as barber and also surgeon. Sometimes there is an astrologer and even a "witchfinder[1]."'

A more important functionary is the accountant (*patwāri* in Northern India, *karnam* in the South, *kārkun* or *kūlkarni* in the West). He keeps the village accounts, showing the ownership of holdings and the payments due to Government or to a landlord, maintains the village map, and is generally the scribe of the community. Lastly comes the *chaukīdār* or village watchman, whose functions in connexion with our police administration are described in chapter xii. The village officials were formerly remunerated by free holdings of land or by fees in kind.

Position of the village in the administration of British India.

The Indian village still plays a large part in the revenue administration; and the headman, the accountant, and the *chaukīdār* are practically Government functionaries who are being more and more remunerated by fixed salaries, as it has been found difficult to keep the lands attached to their offices from alienation. The position of the village headman is most important in Madras, Bombay, and Burma. In the first Province, besides being responsible for the collection of revenue and its remittance to the *tāluk* treasury, he can as village magistrate try petty cases, and must maintain law and order in his village, applying for assistance to higher authorities if necessary, and reporting to them the occurrence of crimes and the movement of criminal gangs, while as village Munsif he acts as a petty civil court. In Bombay the police *pātel* and the revenue *pātel* are sometimes separate officials, but more commonly the two posts are held by the same individual. The police *pātel* supervises the village police, and is bound to keep the Magistrate of the District informed of all matters connected with crime and police, and with the health and general condition of the village. The *lambardārs* of Northern India are more exclusively revenue officials, but they too are bound to give information of the occurrence of crime.

The government of towns in ancient India.

While the Hindus had thus for many ages a system of village self-government, neither they nor their Muhammadan conquerors succeeded in evolving a local administration such as that which grew up in Europe. Neither the customary rule

[1] Baden-Powell, *Land Systems of British India*, vol. i, bk. i, chap. 4. This local economic organization does not however exist in Assam or Burma, and in Bengal proper it is much less developed than in other parts of India. See *Report on the Census of India* (1901), paragraphs 323–5.

of the Indian village communities nor the regulations of the industrial castes, which in some respects resemble our mediaeval trade guilds, ever grew into a true municipal system; and the accounts which have reached us of the method of town government in Hindu and Muhammadan times show the authority vested not in a representative body of inhabitants, but in the police officers, tax-gatherers, and other officials of the sovereign.

Hindu period.

Megasthenes gives the following description of the administration of a large Hindu town in the third century before Christ:—

'Those who have charge of the city are divided into six bodies of five each. The members of the first look after everything relating to the industrial arts. Those of the second attend to the entertainment of foreigners. To these they assign lodgings, and they keep watch over their modes of life by means of those persons whom they give to them for assistance. They escort them on the way when they leave the country, or in the event of their dying forward their property to their relatives. They take care of them when they are sick, and if they die bury them. The third body consists of those who inquire when and how births and deaths occur, with the view not only of levying a tax, but also in order that births and deaths among both high and low may not escape the cognizance of Government. The fourth class superintend trade and commerce. Its members have charge of weights and measures, and see that the products in their season are sold by public notice. No one is allowed to deal in more than one kind of commodity unless he pays a double tax. The fifth class supervises manufactured articles, which they sell by public notice. What is new is sold separately from what is old, and there is a fine for mixing the two together. The sixth and last class consists of those who collect the tenths of the prices of the articles sold.'

These persons who had 'charge of the city' were probably servants of the king[1]; and in the code of Manu it is said that every large town should have its superintendent, who should personally inspect the work of all officials, and obtain secret information about their behaviour. 'For the servants of the king, who are appointed to protect the people, generally become knaves who seize the property of others; let him protect his subjects against such men.'

Muhammadan period.

In the Mughal empire each considerable town was governed by an officer, styled the *kotwāl*, who was the supreme authority in all magisterial, police, and fiscal matters, and also exercised

[1] Their division into bodies of five seems to connect them also with the *panchāyat* system.

many functions now classed as municipal. Detailed instructions for his guidance are given in the *Ain-i-Akbarī* of Abul Fazl. The following passage throws an interesting light on the town life and administration of those times :—

'The appropriate person for this office should be vigorous, experienced, active, deliberate, patient, astute, and humane. Through his watchfulness and night-patrolling the citizens should enjoy the repose of security, and the evil-disposed lie in the slough of non-existence. He should keep a register of houses and frequented roads, and engage the citizens in a pledge of reciprocal assistance, and bind them to a common participation of weal and woe. He should form a quarter by the union of a certain number of habitations, and name one of his intelligent subordinates for its superintendence, and receive a daily report under his seal of those who enter or leave it and of whatever events therein occur. And he should appoint as a spy one among the obscure residents with whom the other should have no acquaintance, and keeping their reports in writing employ a heedful scrutiny. He should establish a separate *sarai* and cause unknown arrivals to alight therein, and by the aid of divers detectives take account of them. He should minutely observe the income and expenditure of the various classes of men, and by a refined address make his vigilance reflect honour on his administration. Of every guild of artificers he should name one as guildmaster, and another as broker, by whose intelligence the business of purchase and sale should be conducted. From these also he should require frequent reports. He should see to the open thoroughfares of the streets, and erect barriers at the entrances and secure freedom from defilement. When night is a little advanced, he should prohibit people from entering or leaving the city. He should set the idle to some handicraft. He should remove former grievances and forbid any one from forcibly entering the house of another. He shall discover thieves and the goods they have stolen or be responsible for the loss. He should so direct that no one shall demand a tax or cess save on arms, elephants, horses, cattle, camels, sheep, goats, and merchandise. In every *sūbah* a slight impost shall be levied at an appointed place. Old coins should be given in to be melted down or consigned to the treasury as bullion. He should suffer no alteration of value in the gold and silver coin of the realm, and its diminution by wear in circulation he shall recover to the amount of the deficiency. He should use his discretion in the reduction of prices and not allow purchases to be made outside the city. The rich shall not take beyond what is necessary for their consumption. He shall examine the weights and make the *ser* not more or less than thirty *dāms*. In the *gaz* [measure] hereinafter to be mentioned, he should permit neither decrease nor increase, and restrain the people from the making, the dis-

pensing, the buying or selling of wine, but refrain from invading the privacy of domestic life. Of the property of a deceased or missing person who may have no heir, he shall take an inventory and keep it in his care. He should reserve separate ferries and wells for men and women. He should appoint persons of respectable character to supply the public watercourses, and prohibit women from riding on horseback. He should direct that no ox or buffalo, or horse, or camel be slaughtered, and forbid the restriction of personal liberty and the selling of slaves. He should not suffer a woman to be burnt against her inclination, nor a criminal deserving of death to be impaled, nor any one to be circumcised under the age of twelve. Above this limit of age, the permission may be accorded. Religious enthusiasts, calendars, and dishonest tradesmen he should expel or deter from their course of conduct; but he should be careful in this matter not to molest a god-fearing recluse, or persecute bare-footed wandering anchorites. He should allot separate quarters to butchers, hunters of animals, washers of the dead, and sweepers, and restrain men from associating with such stony-hearted, gloomy-dispositioned creatures. He shall amputate the hand of any who is the pot-companion of an executioner, and the finger of such as converse with his family. He should locate the cemetery outside of, and to the west of, the city.'

The Municipalities of British India

Development of municipal institutions under British rule. Commencement in Presidency towns.

The system of municipal administration as it now exists in British India is an exotic institution, and for the most part of comparatively recent introduction. It had a much earlier origin in the Presidency towns than in the interior of the country. In 1687 James II conferred a signal favour on the East India Company by delegating to them the power of establishing by charter a corporation and mayor's court in Madras. The scheme was due to Sir Josia Child, the celebrated Governor of the Company, who regarded it as the only solution of the difficult question of town conservancy. The new civil government was constituted on the most approved English pattern, with a mayor, aldermen, and burgesses, who were empowered to levy taxes for the building of a guild-hall, a gaol, and a school-house; for 'such further ornaments and edifices as shall be thought convenient for the honour, interest, ornaments, security, and defence' of the corporation and inhabitants; and for the payment of the salaries of the municipal officers, including a schoolmaster. The mayor and aldermen were made a court of record, with power to try both civil and

[1] *Ain-i-Akbarī*, Jarrett's translation, vol. ii, pp. 41–3.

criminal cases. Nor were the ornamental features of municipal life forgotten. On solemn occasions the mayor was to have carried before him two 'silver maces gilt, not exceeding three feet and a half in length'; and the mayor and aldermen, robed in scarlet serge gowns, were to ride on horseback 'in the same order as is used by the Lord Mayor and Aldermen of London, having their horses decently furnished with saddles, bridles, and other trimmings.' Notwithstanding this pomp and circumstance, the people strenuously resisted the imposition of anything in the nature of a direct tax. The town-hall, schools, and sewers which were to have been the first work of the new corporation could not be undertaken, and the mayor had to ask for permission to levy an octroi duty on certain articles of consumption that he might provide the necessary funds for cleaning the streets. In 1726 a mayor's court, with aldermen but no burgesses, was established by royal charter in each of the three Presidency towns, mainly according to the practice already existing in Madras; but these courts were intended to exercise judicial rather than administrative functions. The first statutory enforcement of municipal administration is contained in the Charter Act of 1793. This Act empowered the Governor-General to appoint justices of the peace for the Presidency towns from among the Company's servants and other British inhabitants. In addition to their judicial duties, the justices of the peace are expressly authorized to provide for scavenging, watching, and repairing the streets, the expenditure on which is to be defrayed by an assessment on houses and lands. Between 1840 and 1853 the municipal constitutions were widened, and the elective principle was introduced to a very limited extent; but in 1856 a different policy prevailed, and all municipal functions were concentrated in a body corporate consisting of three nominated and salaried members. After the passing of the Councils Act in 1861 the system of municipal government was remodelled by the local legislatures; and from this point onwards the history in each Presidency town is different, and leads through a series of Acts to those now in force, namely, the Bombay Act of 1888, the Calcutta Act of 1899, and the Madras Act of 1904. The Bombay Act has been amended in some particulars by later enactments. The system of election of representatives by the ratepayers was first established in Bombay, Calcutta, and Madras by Acts passed in the years 1872, 1876, and 1878 respectively.

Creation of District

Outside the Presidency towns there was practically no attempt at municipal legislation before 1842. In that year an

municipalities. First attempts.

Act was passed, applicable only to Bengal, to enable 'the inhabitants of any place of public resort or residence to make better provision for purposes connected with public health and convenience.' This Act was far in advance of the times. Based upon the voluntary principle, it could take effect in no place except on the application of two-thirds of the householders, and as the taxation enforceable under it was of a direct character, the law nowhere met with popular acceptance. It was only introduced into one town, and there the inhabitants, when called on to pay the tax, not only refused, but prosecuted the Collector for trespass when he attempted to levy it. The next attempt at municipal legislation for country towns was made in 1850 by an Act which applied to the whole of British India. This Act was also permissive in its nature, but it was more workable than its predecessor and, unlike it, made provision for taxation by indirect methods. It was largely used in the North-Western Provinces, and to a considerable extent in Bombay, while in Madras and Bengal it had practically no effect. In Bombay the success of the Act was due to the fact that the taxes collected under it found their prototype in those levied by the Marāthā Government under the designation of town duties and *mohtarfa*. In Madras the object in view was, to some extent, met by voluntary associations for sanitary and other municipal purposes, and in Bengal by the expenditure on conservancy of the balance of the taxation levied under the Town Police Act of 1856[1]. In 1861 the power of local legislation was restored to Madras and Bombay, where it had been in abeyance since 1833, and established in Bengal; and shortly afterwards prominent attention was directed to the unhealthy condition of towns by the report of the Royal Army Sanitary Commission published in 1863. The need for more extensive municipal measures was recognized, and Acts were passed for Bengal in 1864 and 1868, for Madras in 1865, for the Punjab in 1867, and for the North-Western Provinces in 1868. The Act of 1850, amended in some particulars, remained in force in Bombay, and the Punjab Act was extended to the Central Provinces and Oudh in the year in which it was passed. In all Provinces a large number of municipalities were formed; the process indeed went so far that localities which were really of a rural character were from time to time included in the system and had afterwards to be withdrawn from it, their needs being supplied in other ways. The Acts provided for the

[1] This system is still in force in a number of small towns in the United Provinces.

appointment of commissioners to manage municipal affairs and authorized the levy of various taxes. The Bengal, North-Western Provinces, and Punjab Acts made the election of commissioners permissive, but except in the Punjab and the Central Provinces they were in fact all nominated. As a measure of local self-government these Acts did not proceed far, but they were of great service in improving the sanitary condition of the towns.

Extension by Lord Mayo and the Marquis of Ripon.

The Resolution of Lord Mayo's Government which introduced, in 1870, the system of Provincial finance contained the following passage:—

'Local interest, supervision, and care are necessary to success in the management of funds devoted to education, sanitation, medical, charity, and local public works. The operation of this Resolution in its full meaning and integrity will afford opportunities for the development of self-government, for strengthening municipal institutions, and for the association of Natives and Europeans to a greater extent than heretofore in the administration of affairs.'

To carry out this policy new Municipal Acts were passed for Madras in 1871; for Bombay, Bengal, the North-Western Provinces, the Punjab, and the Central Provinces in 1873; and for Burma in 1874. These Acts widened the sphere of municipal usefulness and extended the elective principle. Election was not, however, brought into practical operation in many places. In Madras it was tried in four, and in Bengal in three towns; in the North-Western Provinces the experiment was made in a number of municipalities, but with only a moderate degree of success; and the Central Provinces was the only portion of India in which popular representation was generally and successfully introduced. Matters stood thus when, in 1881–2, the Government of Lord Ripon issued orders which had the effect of greatly extending the principle of local self-government. That statesman took a keen interest in the system as a means of political and popular education, and under his influence the inhabitants of both town and country were given a more real and important share in the management of local affairs than they had hitherto possessed. Acts were passed in 1883–4 which greatly altered the constitution, powers, and functions of municipal bodies. A wide extension was now given to the elective system, and independence and responsibility were conferred on the committees of many towns by permitting them to elect a private citizen as chairman in place of the executive officer who had hitherto filled the post. Arrangements were also made, in connexion with the periodical revision

of the Provincial finances, to increase municipal resources and financial responsibility. A considerable portion of the municipal revenues had hitherto been devoted to the maintenance of the town police, over which the municipal authorities had no control. They were now in most Provinces relieved of this burden, on the understanding that they would incur an equivalent expenditure on education, medical relief, and local public works. At the same time some items of Provincial revenue, suited to and capable of development under local management, were transferred from the Provincial account, with a proportionate amount of Provincial expenditure, for local objects. The principles laid down by Lord Ripon's Government govern the administration of municipalities to the present day. In some Provinces the Acts of 1884, amended in certain respects, are still in force, in others they have been superseded by more recent enactments; but neither the amendments nor the new Acts have substantially altered the system. The later Acts have, however, laid down more fully and precisely the powers and duties of municipal authorities, and the Bombay District Municipalities Act of 1901 is a model of modern municipal methods adapted to the conditions of Indian life.

Number of District municipalities. Statistics relating to District municipalities are given in the first table at the end of this chapter. The figures are exclusive of Upper Burma, British Baluchistān, and Ajmer. These localities are omitted, as they cannot be included all through the table and would therefore vitiate comparison. The first year shown in the statement immediately precedes Lord Ripon's reforms. In 1900–1 there were 742 District municipalities in British India, excluding the territories named above, and they contained nearly 14 million inhabitants. The average population of a municipal town was thus less than 19,000. Only 19 towns have more than 100,000 inhabitants, and seven of these are large centres of native population in the United Provinces, such as Lucknow, Benares, and Cawnpore. The total number of municipalities does not show any marked increase in the last twenty years. New municipalities have been formed from time to time, but on the other hand there have been removals from the list. It has already been stated that some places of a rural character were constituted municipalities, and the inconvenience of this became more apparent when a real system of local administration was introduced.

Municipal constitution. The municipal government is vested in a body corporate composed of municipal commissioners or, as they are called in Madras and Bombay, municipal councillors. This body is

variously styled the municipal council or committee, or the municipality, and has the custody of the municipal fund and property. The latter comprises items such as public buildings, streets, sewers, drains, tanks, wells, other sources of water-supply, markets, and slaughter-houses. In the great majority of municipalities some of the commissioners are elected, the remainder being appointed by name or office under the orders of the Local Government. In most Provinces the proportion of elected members is fixed by law, varying from one-half in Bombay to three-fourths in Madras and the United Provinces. Power is usually reserved to the Local Government to declare that this provision of the law shall not apply to any particular municipality. The maximum proportion of salaried Government officers who may serve on the committee is also laid down in several Provinces, being one-fourth in Madras, Bombay, and Bengal. The rules for election are framed by the Local Governments in accordance with the provisions of the Acts, and representation in the larger municipalities is in general by wards or classes of the community, or both. Voters must be male residents not below a specified age, and property or status qualifications are generally laid down.

The maximum period of municipal office is three years in all cases. The chairman or president of the municipal corporation is sometimes nominated under the orders of the Local Government, but more often elected by the commissioners from among themselves; and where there is a vice-chairman or vice-president he is similarly chosen. The principal servant of the municipality is a paid secretary, whose functions correspond to those of a town clerk in England.

Government control.

It was the policy of Lord Ripon's Government to substitute outside control for inside interference in municipal affairs. This control is in general exercised through the Collector of the District and the Commissioner of the Division. The latter may inspect any municipal work or record, and, subject to Government confirmation of his orders, may restrain a municipality from performing any act which is unlawful, or is likely to cause injury or annoyance to the public or a breach of the peace. The Government may provide for the performance of any duty which the commissioners neglect, and may suspend them in case of incompetence, default, or abuse of powers. Special control is exercised over finance and appointments. Thus in Bengal the budget estimate must be submitted to, and may be amended by, the Commissioner of the Division, and the sanction of Government is required to the creation

of appointments the pay of which is Rs. 200 a month or upwards.

Municipal functions.

Municipal functions are classified under the heads of public safety, health, convenience, and instruction. Within these heads the duties are many and varied. The Bombay Act of 1901 gives a detailed statement of the functions of an Indian municipality, discriminating between obligatory and discretional duties. The following are included in the obligatory list: lighting; watering and cleansing public streets and places; abatement of public nuisances; protection against fire; regulation or abatement of offensive or dangerous trades and practices; removal of obstructions in public streets and places; securing or removing dangerous buildings; reclamation of unhealthy localities; disposal of the dead; construction and maintenance of public streets, culverts, boundary marks, markets, slaughter-houses, latrines, drains, sewers, drainage and sewage works, baths, washing places, drinking fountains, tanks, wells, dams, and the like; water-supply; naming streets and numbering houses; public vaccination and the supply of animal lymph; public hospitals and dispensaries; primary education; measures of precaution and relief during visitations of epidemic disease, and of relief during periods of famine or scarcity. This long list represents the work of a large and flourishing municipality; in smaller places only a portion of the duties would be fulfilled. The discretionary objects of expenditure include new streets; public parks, gardens, libraries, museums, halls, offices, rest-houses, and other public buildings; education above the primary stage; roadside and other trees; census; rewards in connexion with vital statistics; survey; precautionary measures connected with dogs; places for carrying on offensive trades; sewage arrangements for private premises; sewage farms or factories; public receptions; ceremonies and exhibitions. Some account of municipal work in connexion with education, sanitation, and medical relief is given in chapters xiii and xiv of this volume.

In order to enable them to carry out their functions, various powers are conferred on municipal committees by the municipal Acts and the by-laws framed under them: for instance, the power to enter on premises and execute works which the owner or occupier is bound but neglects to carry out. Corresponding duties are laid on the inhabitants and are enforced by fines and other penalties. Thus in Bengal municipalities a fine not exceeding Rs. 50 may be imposed on any person who fails to remove filth from his premises, or to keep drains, &c., in proper order, or who obstructs roads, drains, or water-courses;

and continuous fines may be inflicted for disobedience to lawful municipal orders relating to the public health or safety.

Statistics regarding the income and expenditure of District municipalities, outside Upper Burma, Baluchistān, and Ajmer, are given in the first table at the end of this chapter. The total income rose from about 1·3 crores in 1880–1 to 2·6 crores in 1900–1. During the same period the average incidence of taxation rose from R. 0–13–9 to Rs. 1–3–4 per head. The average is highest in Bombay (Rs. 1–11–1) and lowest in Bengal (Rs. 1–1–5) and Madras (R. 0–15–1). The highest incidence of all occurs in the hill stations, where a small population live under conditions which make municipal work specially expensive. In Simla the incidence amounts to as much as Rs. 12–11–3. In many important centres of population it averages between Rs. 2 and Rs. 3, while in a large number of small municipalities it is less than 8 annas. Leaving aside 'extraordinary and debt' receipts, about two-thirds of the aggregate municipal income is derived from taxation, and the remainder from municipal property and powers other than taxation, contributions from Provincial revenues, and miscellaneous sources. The Provincial contributions amounted in 1900–1 to about 3 lakhs for general, 3½ lakhs for educational, and 1 lakh for medical purposes. The principal heads of taxation are octroi; taxes on houses and lands, animals and vehicles, and professions and trades; tolls on roads and ferries; and water, lighting, and conservancy rates.

Municipal revenues.

Octroi is levied only in the Punjab, the United Provinces, the Central Provinces, and Bombay. In these Provinces it is the principal source of taxation, and in the Punjab it yields more than 90 per cent. of the total municipal taxes. It is a form of impost which is not without objection, as its management is expensive, and unless kept within narrow limits and carefully watched it is apt to degenerate into a transit duty and thus inflict injury on trade. It is, however, familiar through long usage to the inhabitants of the North and West of India, and could not be abolished without the imposition of direct taxes, which would be much less popular. Town duties were a common incident of native administration, and everything that passed into or through the city had to pay the *chungi* or 'handful.' It was not until many years had elapsed, and repeated orders had been issued, that the impost lost the injurious qualities of a transit duty. Nowadays careful precautions are taken to limit the tax to articles actually consumed in the town. The list of dutiable articles contains only staple

Octroi.

commodities of local consumption, and goods in transit are allowed to pass through the town in bond, or arrangements are prescribed for the refund, on exit, of duties levied on entrance. Articles of food form the most important subject of octroi taxation; other sources are fuel, articles for washing and lighting, building materials, drugs, gums and spices, tobacco, cloth, and metals. Subject to special exceptions, commodities upon which the state claims the full taxable capacity, such as salt, opium, excisable articles and mineral oils, may not be taxed for municipal purposes; and other articles liable to sea-customs duty must not in general be taxed locally at a higher rate than $3\frac{1}{8}$ per cent. *ad valorem*. For articles not subject to sea-customs duty the maximum octroi rate is generally about $4\frac{3}{4}$ per cent. *ad valorem*, but necessaries of life must in all cases be taxed moderately. In Cawnpore the ordinary octroi is replaced by a terminal tax, which is a low charge on imports and exports, and is largely collected along with railway freight.

Tax on houses and lands.

A tax on houses and lands is the principal source of municipal revenue in Madras, Bengal, Burma, and Assam. In 1900–1 this yielded in Madras nearly half the total taxation receipts. It is assessed in that Province by the chairman at a rate which is fixed, by the council, at not more than $8\frac{1}{2}$ per cent. on the gross annual rental. In Bengal the house tax, in conjunction with a tax on persons occupying holdings within the municipality according to their circumstances and property, yielded in 1900–1 more than a third of the total taxation receipts. The last-mentioned impost partakes of the nature both of a property and a profession tax. It dates from the earliest days of town improvement in Bengal, and is still found convenient in small municipalities. Both forms of taxation may be levied in the same municipality, but not in the same ward. The rate on persons must not exceed Rs. 84 in respect of the occupation of any holding, nor the tax on houses $7\frac{1}{2}$ per cent. on the annual value of the holding as determined by the commissioners.

Profession tax.

Madras and the United Provinces are the only Provinces in which the profession tax forms an important item of municipal revenue, although the tax is levied in most parts of India. In 1900–1 it yielded nearly two lakhs in Madras and nearly $1\frac{1}{4}$ lakhs in the United Provinces. In Madras the tax on 'arts, professions, trades and callings, and on offices and appointments' is in effect a rough income tax, varying in amount from Rs. 100 on incomes of not less than Rs. 2,000 to R. 1 on incomes of not less than Rs. 30, while in other Provinces it is of the nature of a fixed licence tax. There are well-recognized

objections to a local tax of this nature which trenches on the scope of the Imperial income tax, but it is allowed to stand owing to the difficulty in replacing a source of taxation to which the people have become accustomed by many years' usage. The amount of the Madras tax has, however, from time to time been diminished, and a considerable reduction resulted in 1897–8 from an amendment of the schedule to the Act under which it is levied.

Other sources of income.

Tolls on roads and ferries yielded about 10 lakhs in 1900–1, two-fifths of which belonged to Madras. They form an important item of revenue also in Assam. More than half the conservancy receipts are collected in Bengal, where a latrine tax is one of the common forms of taxation. Water-rate is levied in the large towns which have been furnished with water-works. It is assessed on the annual value of holdings at a maximum rate of 8 per cent. in Madras and 7½ per cent. in Bengal and the United Provinces. Other items of revenue are proceeds of municipal lands and buildings, conservancy receipts (other than the rate), educational and medical fees, receipts from markets and slaughter-houses (a very important item in Burma), and interest on investments.

Municipal expenditure.

Municipal expenditure increased, like the revenue, from 1·3 crores in 1880–1 to 2·6 crores in 1900–1. The objects on which it is incurred are indicated by the list of municipal functions and duties given above (p. 290). The cost of general administration and collection averages somewhat over 10 per cent. of the total expenditure and varies little from Province to Province. Under public safety the main items are police, lighting, and protection against fire. The total under these three heads amounted in 1900–1 to about 21½ lakhs. The expenditure on police has greatly diminished in accordance with the change of system made by Lord Ripon's Government. In 1900–1 there remained less than 12 lakhs under this head, of which 11 lakhs was incurred in the United Provinces and the Punjab, where the new policy has not been completely carried out[1]. The expenditure on lighting has more than doubled during the past twenty years. The streets are, in general, lit by oil lamps, but a few important municipalities are provided for in a more modern fashion. The expenditure on protection against fire is small. Where thatched roofs are common the danger of fire during the hot season is great; but poor municipalities cannot afford to spend money on establish-

[1] The relief of the United Provinces municipalities from this charge was undertaken in connexion with the Financial Settlement of 1904.

ment and apparatus for fire extinction, and in a small town the inhabitants have to do the best they can with earthen pots of water handed from the nearest well. The expenditure on drainage and water-supply rose between 1880–1 and 1900–1 from about $12\frac{1}{3}$ to 29 lakhs. The work represented by this large increase in expenditure is described in chapter xiv, and forms one of the most important incidents in the history of Indian municipal institutions. Expenditure on hospitals and vaccination increased during the same period from $7\frac{1}{3}$ to $22\frac{1}{4}$ lakhs. Its rise has been steady ever since the reorganization of municipal finance under Lord Ripon's administration. The expenditure on public instruction rose from $4\frac{1}{2}$ lakhs in 1880–1 to 16 lakhs in 1886–7, and 23 lakhs in 1900–1. The first great rise was due to the assumption by municipalities of a larger share in educational work when they were relieved of the police charges. The expenditure on public works has not shown much variation, and amounted to about 29 lakhs in 1900–1.

Debt. The total charge for interest rose between the years 1886–7 and 1900–1 from $1\frac{1}{2}$ to 10 lakhs. This is due mainly to the increase of loan transactions for water-supply and drainage projects too large to be defrayed from ordinary revenues. An Act was passed in 1871, and amended in 1879, to enable municipalities and other local bodies to borrow either from Government or in the open market on the security of their funds. Municipalities have in general been unable to obtain money in the market on reasonable terms, and their borrowings have been almost entirely from Government. Up to 1876 loans were granted freely. Later, financial difficulties prevented the Government from lending to municipalities except in very rare cases, and as they were unable to borrow in the market large projects of improvement could not be carried out. In 1889 these restrictions were removed, and municipalities immediately began to borrow for drainage and water-works. Under the arrangements now in force Local Governments have a loan account with the Imperial Treasury on which they pay interest at the rate of $3\frac{1}{2}$ per cent. From the balance of this account they advance municipal and other loans at a rate of interest which may not be less than 4 per cent. The period of repayment may not exceed twenty years except under very special circumstances, and may in no case exceed thirty. About 7 lakhs were advanced in 1900–1, and at the end of that year the total amount outstanding was nearly two crores. In 1897 an Act was passed enabling local authorities to borrow money

to meet emergent outlay caused by famine or epidemic disease, and it has been used to obtain money for expenditure connected with plague.

Embryo District municipalities.

In several Provinces the Local Government is empowered to extend any section of the Municipal Act to small towns which it is not expedient to form into regular municipalities, and to impose taxation in such towns, and appoint managing committees.

Present constitution of Presidency municipalities.

Reverting to the Presidency towns, it has to be noted that the administration of Calcutta under its Municipal Acts of 1876 and 1888 was not very successful. The government was vested in a nominated chairman and seventy-five commissioners, fifty of whom were elected by twenty-five ward constituencies and the remainder appointed by Government or nominated by the Chamber of Commerce and other bodies specially interested in the prosperity of the city[1]. The commissioners interfered too much with the executive; and although some large schemes for the improvement of the city were carried through, parts of it were allowed to remain in a very insanitary condition and municipal business was neglected in several other directions. These dangers were brought prominently to notice when plague first threatened the city. Special effort was then made to improve sanitation, and it was determined, in order to secure better administration in the future, to alter the municipal constitution. Under the new constitution, established by Act III of 1899 (Bengal), the number of commissioners was reduced to fifty, of whom twenty-five are elected (one by each ward) and twenty-five are appointed as follows: fifteen by the Local Government, four each by the Bengal Chamber of Commerce and the Calcutta Trades Association, and two by the Commissioners of the Port. At the same time a general committee of twelve of the commissioners was created to assist in the ordinary work of administration, the general government remaining vested in the corporation. Four members of the general committee are appointed by the ward commissioners, four by the nominated commissioners, and four by the Local Government. More independent authority was also vested in the chairman, who is appointed by the Government, subject to removal by a two-thirds vote of the commissioners, and is assisted by a deputy and a vice-chairman. The Act invests him with general executive powers, specifically imposes on him a number of important duties, and confers on him the control of the municipal establishments.

[1] Between 1863 and 1876 the governing body consisted of the justices of the peace, with a salaried chairman.

The municipal corporation of Bombay, which formed the model for the new Calcutta constitution, and which dates in its main features from 1872, consists of seventy-two councillors, of whom thirty-six are elected by wards, sixteen by the justices of the peace, two by the Fellows of the University, and two by the Bombay Chamber of Commerce. The remaining sixteen are appointed by the Government. The general municipal government is vested in this corporation, and the ordinary business is transacted by a standing committee of twelve councillors, eight appointed by the corporation and four by the Government. The president of the corporation is elected annually by the councillors, but is not, like the chairman of the Calcutta corporation, an executive officer. The chief executive authority in Bombay is vested in a separate officer, styled the Municipal Commissioner. He is appointed by the Government, but can be removed by a vote of forty-five of the councillors. His powers and duties are similar to those conferred on the Calcutta chairman in his executive capacity. The Bombay constitution has worked well, and the citizens have shown both public spirit and ability in the conduct of the administration.

The municipal affairs of Madras, as now regulated by Madras Act III of 1904, are administered by a corporation consisting of a president and thirty-six commissioners. Of these twenty are elected by the ratepayers, three each by the Chamber of Commerce and the Trades Association, two by such other associations, bodies, or classes as the Government may direct, the remaining eight being nominated by the Government. The executive authority is vested in the president, who is appointed by the Government but can be removed by a vote of twenty-eight commissioners. A standing committee consisting of the president and eight commissioners elected by the corporation, of whom four must be directly representative of the ratepayers, is mainly concerned with financial and building questions and can entertain appeals from the president's orders in certain matters.

In all these municipalities some degree of financial and executive control is reserved to the Government. The work of the Presidency corporations, especially in Calcutta and Bombay, is, of course, on a much larger scale than that of an up-country municipality. Each city has considerable establishments for the purposes of general administration, the collection of the revenue, conservancy, the maintenance of water, drainage, and sewage works, and the many other functions that must be fulfilled by the governing body of an important city For details

regarding the sanitary administration the reader is referred to chapter xiv.

Statistics.

The city of Calcutta has a population (excluding the suburbs, which are under separate municipal administration) of about 809,000, and its ordinary income amounted in 1903–4 to 60¼ lakhs. Nearly 54 lakhs was derived from taxation, out of which more than 46 lakhs was the proceeds of a consolidated rate on lands and buildings levied for general purposes and for water-supply, sewage, and lighting. Taxes are also levied on animals and vehicles, and on professions and trades. The average incidence of taxation in 1903–4 was Rs. 6–10–9 per head of population. Large works are carried out with funds borrowed in the open market or from Government, and the debt outstanding at the end of 1902–3 amounted to about 3¼ crores.

The population of Bombay is 776,000. The ordinary income is considerably larger than in Calcutta, amounting in 1902–3 to nearly 81 lakhs, of which nearly 71 lakhs was derived from taxation. The rate on buildings and lands yielded about 50 lakhs, and octroi duties (which do not exist in Calcutta) about 12 lakhs. The debt outstanding at the end of the year was about 5 crores. Madras is a smaller town and its trade is much less important. The population is about 509,000, and its ordinary income in 1902–3 was about 15 lakhs.

Schemes for the improvement of Calcutta and Bombay.

In concluding this brief account of the administration of the Presidency towns it is necessary to say a few words regarding the schemes which are now in progress for opening out and improving the congested areas of Calcutta and Bombay. The matter is further advanced in the latter city. A large proportion of the poorer inhabitants of Bombay live in *chawls* or tenement houses. These tenements, which may run to seven stories, consist of a congeries of corridors and rooms sheltering as many as from 500 to 1,000 persons. They are often built in narrow and dirty lanes without proper light or ventilation. Under the scheme for the improvement of the city, nearly seven miles of new streets are to be run through the most crowded quarters, and large sums are to be spent on reclaiming building sites along the shore and on the erection of more sanitary dwellings for the poorer classes of the population. The estimated cost of the whole plan is 5 crores. Its execution has been entrusted to a Board of Trustees created under a special Act passed in 1898. To defray a portion of the cost, vacant Government and municipal lands have been made over to the trustees, and the balance will be met by increased collections from municipal assessments on the improved property, and by

an annual contribution from municipal funds not exceeding 2 per cent. on the rateable value of lands and buildings. In Calcutta, the northern wards of the city are greatly overcrowded, and masonry buildings and *bastīs* (collections of mud huts) are all huddled together without sufficient means of ventilation. A comprehensive scheme has recently been prepared for the opening out and improvement of the congested portions of the city.

Rangoon.

The municipality of Rangoon is administered under the general Burma Municipal Act (III of 1898). The administration is vested in twenty-five commissioners, sixteen of whom are elected by members of the European, Chinese, Hindu, Muhammadan, and Burmese communities, and three by commercial bodies. The remaining six (including the president) are appointed by the Government. The population amounts to nearly 219,000, and the ordinary revenue in 1902-3 was nearly 25 lakhs. The receipts are steadily increasing from year to year.

The Local Boards of British India

Origin of local boards.

The development of local institutions in rural areas began later, and has been slower, than the growth of municipal government. In Madras and Bombay semi-voluntary funds for local improvements were the first germ of modern local self-government. This system of voluntary association did not extend to Bengal and the United Provinces, but consultative committees assisted the District officers in the management of funds devoted to local schools, roads, and dispensaries. The earliest legislation for raising rates to be devoted to local objects was applied to Sind in the year 1865, replacing a system of local cesses inherited from the administration of the Mīrs. This Act authorized the imposition of a small cess on land and a tax on houses: it presupposed the existence of local executive committees, but made no provision of a constitutional character with regard to them. In the following year an Act was passed to authorize the levy of a local rate in the Madras Presidency, but the ratepayers took no part in the administration of the proceeds. Bombay followed suit, in 1869, with a law to regulate and extend the operations hitherto conducted by the local committees. It was the avowed intention of this measure to accustom the people to take part in the administration of their affairs, and the proceeds of the cess were to be administered by committees nominated by the Government and under the tutelage of the Collector. The year 1871 saw a wide development of legislation for local purposes, partly due to growing

needs and partly the result of the financial decentralization scheme of Lord Mayo's Government. In that year Acts were passed for Madras, Bengal, the present United Provinces of Agra and Oudh, and the Punjab, while Bombay and Sind remained satisfied with the existing law. The new Madras Act divided the country into local fund circles, and constituted for their administration consultative boards nominated by the Government and under the presidency of the Collector. The Bengal Road Cess Act of 1871 provided for the levy of a rate on real property for the improvement of communications, and established local bodies who might be either nominated or elected by the ratepayers. The new scheme of Provincial finance made it essential for the Governments of the United Provinces and the Punjab to supplement their resources by local taxation, and the Acts passed for those Provinces authorized the levy of a rate on land and the constitution of local committees to administer the funds. In both cases the members of the committees were nominated. The work of the new committees in Northern India was not very satisfactory. They met with reluctance and took little interest in their duties, and the administration remained practically with the District officers. Matters rested much on this footing until the whole system was reorganized in accordance with the policy of Lord Ripon's Government. Under the orders of 1881–2 the existing local committees were to be replaced by a network of boards extending all over the country. The lowest administrative unit was to be small enough to secure local knowledge and interest on the part of each member of the board, and the various minor boards of the District were to be under the control of a general District board, or to send delegates to a District council for the settlement of measures common to all. The non-official element was to preponderate, and the elective principle was to be recognized as in the case of municipalities. At the same time the resources and financial responsibility of the boards were to be increased by the transfer to them of certain items of Provincial revenue with a proportional share of Provincial expenditure. It was, however, recognized that conditions were not sufficiently advanced or uniform to permit of one general system being imposed in all Provinces, and a large discretion was left to Local Governments as to the manner and time for giving effect to the instructions. Of this discretion they availed themselves fully, and the systems introduced by the Acts of 1883–5 (most of which are still in force) vary greatly in different parts of India.

Their organization and constitution.

The Madras organization, which provides for three grades of local boards, most nearly resembles the pattern set in the original orders. Throughout the greater part of the Province important villages or groups of villages are organized as 'unions,' each controlled by a body to which the time-honoured name of *panchāyat* has been applied. These unions levy a light tax on houses, mainly for sanitary purposes. Next in degree come the *tāluk* boards, which form the agency for local works in the administrative sections into which the Districts are divided[1]. Finally, there is a District board with general control over the local administration of the District. In Bombay there are only two classes of boards, for Districts and *tālukas* respectively. A peculiarity of the Bombay system is that it recognizes the local municipalities as being entitled to a voice in the board elections. In Bengal, the Punjab, and the North-western Frontier Province the law requires a District board to be established in each District, but leaves the establishment of subordinate local boards to the discretion of the Local Government. They have been established in thirty-four Districts in Bengal, in eleven in the Punjab, and in one in the Frontier Province. The Bengal Act authorizes the establishment of village unions, but this provision has not been largely used. The United Provinces Act directed the establishment of District and sub-district boards. The latter were, however, of little use, and even the District boards of the United Provinces have shown little initiative, and gladly delegated most of their functions to the official members. By (United Provinces) Act III of 1906, the whole system was remodelled, sub-district boards were abolished, and the District boards received a much larger measure of administrative and financial independence. The system in the Central Provinces bears most resemblance to that which prevails in Madras. Villages are aggregated into circles and circles into groups; for each group a local board is established, and for each District a District council having authority over local boards. In Assam local rates are levied under a Regulation of 1879, and local boards are administered under a system introduced by executive order in 1882. District boards have not yet been introduced, and independent boards are established in each subdivision. The local administration has derived much assistance from the tea-planters, who are greatly interested in the maintenance of

[1] The name is not altogether fortunate, for these boards are constituted not for individual *tāluks*, but for District subdivisions which generally consist of more than one *tāluk*.

adequate means of communication. A proposal to introduce a Local Boards Regulation in Assam is at present under the consideration of the Government. No local boards have as yet been formed in Burma.

Popular representation.

The degree to which the elective principle has been introduced varies greatly in different parts of India. In Madras the Local Government is empowered to sanction the election of a portion of the members of District, *tāluk*, and 'union' boards in any locality. As yet the representative principle has only been applied to District boards, the elected members of which must be chosen from among the members of the *tāluk* boards, who are themselves nominated. Nearly one-half the members of the District boards are thus elected. In Bombay at least one-half of the members of both *tāluka* and District boards must be elected, and some of the District board members are chosen by the *tāluka* boards from among their own number. In the Bengal Districts throughout which sub-District boards have been constituted, these boards are entitled to elect not less than half the members of the District board. Two-thirds of the members of each sub-district board are elected in the more advanced Districts, in others all the members are nominated. At least three-fourths of the members of the District boards in the United Provinces must be elected, except in a few backward tracts.

The various Acts usually leave it to the discretion of the Local Government to decide whether the chairman of the District board shall be elected or nominated. In no Province has it hitherto been found advisable to permit election, and the office is still in general held by the Collector. In the United Provinces, however, election, subject to the veto of the Local Government, has been prescribed by recent legislation. As regards the subordinate boards law and practice vary. In Madras and Bombay the chairman may be elected or nominated, but in practice is always nominated. In Bengal the right to elect a chairman is vested in the subdivisional board. On the whole, the principle of representation is much less developed in rural than in municipal areas. Where the ratepayers have a voice in the appointment of the members of the boards, the franchise is in general granted to male residents above a certain age and with specific qualifications either of property or status. The usual term of office on a board is three years.

Functions of local boards.

The primary duty of the local boards is the maintenance and improvement of the means of local communication. Their obligations do not, in general, extend to the main lines of

traffic, but in some instances they have taken over these also, and have even gone so far as to promote light railways. Other important functions are the maintenance of hospitals and dispensaries; the provision of drainage and water-supply; general sanitation; vaccination; education, especially in its elementary stages; the charge of pounds and ferries; the construction and maintenance of markets, rest-houses, and other public works; and the relief of the population in times of famine.

The relations of the District and sub-district boards vary in different Provinces; but, speaking generally, the latter are the subordinate agents of the former, entrusted with certain branches of local expenditure for which they receive allotments. They stand to the District boards, on a small scale, in much the same position as the Local Governments occupy towards the Government of India.

Receipts. Statistics comparing income and expenditure in the years 1889–90 (the first for which complete figures are available) and 1900–1 are given in the second table at the end of this chapter. The total income increased from about 2·7 to about 3·2 crores, and the average incidence of taxation per head by 2 pies. Provincial rates yield nearly 60 per cent. of the income; and the other main items are contributions from Provincial revenues, receipts from pounds and ferries, and fees and other payments connected with educational and medical institutions. Road tolls are levied only in Madras.

The income from Provincial rates consists mainly of the land cess already described in the preceding chapter. It varies with the amount of the land revenue, on which the land cess forms a percentage fixed in accordance with law by the Local Government; and, on the whole, the sources of income open to local boards are much narrower and less elastic than in the case of municipalities. Madras has the largest aggregate income (more than 98 lakhs in 1900–1), and next to the United Provinces its percentage of increase is the largest. Until 1896 the District boards in the United Provinces had no separate funds, and their functions were in general confined to the administration of the sums allotted to them annually by the Local Government. Under a system introduced in 1897–8, separate funds were established and District boards were allowed to carry forward their balances. The reform was incomplete, because contributions, varying in amount from year to year, were levied from the richer boards in order to provide for the administration of the poorer Districts; but in 1906 the

contributions were relinquished, and arrangements were made to secure to the various boards a real financial independence. In Bengal the District boards have been much hampered by the narrowness of their resources, and in 1900 the Local Government took steps to improve their financial position by allotting to them a portion of that part of the cess on land which is there levied for public works. In Bombay and the Central Provinces the finances of the local boards have been greatly crippled by famine, and in the former Province by plague also. The local funds have been assisted since 1905 by a grant from Imperial funds approximately equal to one-fourth of their income from cesses on land, and it is proposed to make similar contributions annually.

Expenditure.

The total expenditure rose between 1889-90 and 1900-1 from about 2·6 to more than 3 crores, nearly one-third of which was incurred in Madras. The rise has been substantial in most Provinces, but in Bombay and the Central Provinces there has been a decline since 1896-7, due to famine and plague. Nearly half the total expenditure is under the head of public works; and deducting the cost of establishment, tools, and plant, five-sixths of the public works outlay is spent on roads, bridges, and other objects connected with communications. In Bengal there are 41,000 miles of road under the charge of the local boards. Roadside avenues of trees are a great comfort to the traveller under the heat of an Indian sun, and they are everywhere regarded as an object of local expenditure. Out of 27,000 miles of District board roads in Madras, 16,000 are sheltered in this manner. Next to roads the chief item under the head of public works is buildings, which include offices, schools, dispensaries, staging bungalows, and the like. The most important officer of the District board is, in Madras and Bengal, the District Engineer, who superintends local public works and is aided by a subordinate staff of overseers, &c.; elsewhere the more important works paid for and controlled by the District boards are generally carried out through the agency of the Public Works Department. Expenditure on hospitals, sanitation, and vaccination increased from a little over 22 to about 36 lakhs, and on public instruction from 51 to nearly 65 lakhs. These subjects are dealt with in other chapters of this volume. Among the minor items of local expenditure, veterinary charges are of considerable importance. In Bengal, the Punjab, and the United Provinces local cattle-shows are held with the object of improving the breed, veterinary assistants are employed in a number of Districts, and

special attention is paid to the treatment of cattle disease. In times of famine the relief of the distressed is, in the first instance, the duty of the local authorities. In 1899–1900 local boards in Bombay spent about 3 lakhs, and in the Punjab nearly 2 lakhs, in fulfilment of this obligation.

Village unions.

The working of the village unions in Madras, some of which are qualifying for development into municipalities, deserves special notice. Between 1889–90 and 1902–3, the number of unions increased from 248 to 379, and their income from $3\frac{1}{3}$ to nearly 7 lakhs. In the former year less than half, and in the latter more than three-quarters, of this income was derived from house tax levied within the union. In 1902–3 the average assessment per house taxed was 13 annas and 5 pies. The duties of the unions are primarily connected with the health of the community and are described in chapter xiv. In Bengal the village union system was introduced experimentally in 1895–6, and the number of unions amounted in 1902–3 to 57. Their average income was only Rs. 403, and with such narrow means their work must necessarily be on a very small scale. In Bombay and the Central Provinces the place of the village unions is to some extent taken by local committees appointed under the Village Sanitation Acts in force in those Provinces.

Port Trusts

Port Trusts.

One form of local self-government which may be briefly mentioned here is the existence of Port and Harbour Trusts in Calcutta, Bombay, Karāchi, Madras, Rangoon, Chittagong, and Aden. These bodies, which administer the ports in question and are charged with the provision of suitable dock-accommodation and other necessary services to shipping, are all under chairmen appointed by Government; but a large proportion of their members represent the commercial communities interested in the port, who are, except in Aden, elected by Chambers of Commerce or similar bodies. In Calcutta, Bombay, and Karāchi the municipality is also represented. The revenues which the Port Trusts administer are mainly derived from dues on shipping and goods, and from fees for services rendered. The Trusts are empowered to raise funds by loan to meet capital expenditure; and in Calcutta and Bombay 4·7 and 5·6 crores respectively had been so obtained, and were still outstanding, up to the end of 1902–3, the greater part having been advanced by Government. The current revenue of these two great Trusts is about 77 lakhs in the case of Calcutta (1903–4) and about 60 lakhs in the case of Bombay

(1902–3). Among the most important works carried out by Port Trusts in recent years may be mentioned the opening of the Kidderpore docks in Calcutta (1892), the Merewether dry dock in Bombay (1891), and a dry dock in Karāchi (1901). The construction of a new dock in Bombay, to suit the increased size of modern steamships, has recently been begun.

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The principal Acts regulating District Municipalities are IV of 1884 (Madras), III of 1901 (Bombay), III of 1884 (Bengal), I of 1900 (United Provinces), XX of 1891 (India—for the Punjab), and III of 1898 (Burma).

Those regulating the Presidency Municipalities are III of 1899 (Bengal—for Calcutta), III of 1904 (Madras), and III of 1888 (Bombay). See also for Calcutta, vol. vii (part i) of the *Census of India Reports* for 1901; and vol. x (part iv) of the same series for Bombay.

The principal Acts regulating Local Boards are V of 1884 (Madras), I of 1884 (Bombay), III of 1885 (Bengal), III of 1906 (United Provinces), and XX of 1883 (India—for the Punjab).

In every Province the Local Government publishes an annual review of the operations of the District Municipalities and Local Boards, and there are separate reviews for the Presidency towns.

Most Provinces also possess Municipal Manuals, and some possess Local Board Manuals, which bring together the regulating Acts, the principal rules made thereunder, and decisions on points of difficulty.

TABLE I. STATISTICS OF DISTRICT MUNICIPALITIES *

(*Income and expenditure figures in thousands of rupees*)

	1880–1.	1890–1.	1900–1.
Number of municipalities . .	722	739	742
Population	11,830,704	13,021,109	13,871,218
Members	9,594	9,802	9,797
Percentage of elected members .	22·5	53·1	50·4
Income.			
Taxation	1,02,17	1,16,99	1,67,98
Other sources	26,35	55,49	68,57
Extraordinary and debt . .	. .	33,32	21,76
Total	1,28,52	2,05,80	2,58,31
	R. a. p.	R. a. p.	R. a. p.
Incidence of taxation per head .	0 13 9	0 14 4	1 3 4
Expenditure.			
Ordinary	1,22,99	1,89,49	2,22,47
Extraordinary and debt . .	3,11	17,29	33,55
Total	1,26,10	2,06,78	2,56,02

* Excluding Upper Burma, Baluchistān, and Ajmer.

TABLE II. STATISTICS OF LOCAL BOARDS *

(*Income and expenditure figures in thousands of rupees*)

	1889–90.	1900–1.
Number of boards . . .	970	1,073
Population	171,335,188	193,600,005
Members	15,413	15,648
Percentage of elected members .	41	33
Income.		
Provincial rates	1,57,59	1,87,27
Pounds	10,38	11,89
Education	7,54	8,53
Medical	1,76	2,96
Civil Works	19,40	39,10
Provincial contributions . .	38,33	29,53
Other sources	32,87	38,60
Total	2,67,87	3,17,88
	R. a. p.	R. a. p.
Incidence of taxation per head .	0 1 5	0 1 7
Expenditure.		
Education	51,01	64,59
Medical	22,11	35,91
Civil Works	1,41,10	1,46,81
Other charges	48,69	67,65
Total	2,62,91	3,14,96

* Ajmer and Berār are excluded from the statement. The local board system came into force in Coorg only from the beginning of 1901–2, and there are no local boards in Burma.

CHAPTER X

PUBLIC WORKS ORGANIZATION

IRRIGATION, Railways, and Roads have already been dealt with under their economic aspect in Vol. III. The present chapter is mainly concerned with the agency by which these and other undertakings falling within the sphere of the Indian Public Works Department are carried out and supervised.

Three main classes of Public Works. Their early administration. Buildings and Roads.

Public Works in India fall naturally into three classes, Buildings and Roads, Irrigation, and Railways. Military, as distinct from Civil, buildings make a fourth class, when separately administered as they are now. The organization of the three main branches originated separately and at different times. A Military Board in each of the three Presidencies was the first recognized authority for works of the first class, which in those days were all of a military character, comprising barracks and other buildings for troops, and the few military roads that had been commenced prior to 1850. The history of the Military Boards is buried in 789 ponderous tomes of manuscript records, extending from the year 1773 to 1858, which are stored in the record-room at Calcutta. Of the Bengal Board the Marquis of Dalhousie, when Governor-General, recorded that its constitution was faulty, its duties far too onerous, and its work badly done in consequence. The idea of dissociating the Public Works business from the Board of the Bengal Presidency, which eventually led to the extinction of all three Military Boards, was probably aided by the success that attended the experiment of creating a department for Public Works in the newly acquired Province of the Punjab. This was in 1849, and the first Chief Engineer of the new department was Lieutenant-Colonel Napier, afterwards Lord Napier of Magdāla. In the following year a Commission appointed by order of the Court of Directors reported conclusively against the system of the Military Board in Bengal, and suggested that each Local Government should control its own Public Works, civil and military, under certain limitations, with the aid of a Chief Engineer and a staff of Superintending, Executive, and Assistant

Engineers. This system was first adopted for the Bengal Presidency, and was subsequently introduced into Madras and Bombay with modifications of detail. These arrangements were completed in 1854, the sixth year of Lord Dalhousie's Governor-Generalship.

Irrigation.

Irrigation works, the second of the three classes, had been carried out, under British rule, many years before these occurrences. Work on the systems known as the Eastern and Western Jumna Canals, which owed their first beginnings to neglected canals constructed by Fīroz Tughlak and the Mughal emperors, appears to have been commenced between 1817 and 1822. The Ganges Canal had been commenced in 1842 under Sir Proby Cautley; the Bāri Doāb Canal also had been commenced by Colonel Dyas. In Madras the great anicut (dam) across the river Godāvari had been designed and constructed by Sir Arthur Cotton and his successors. When the new Public Works Department was formed in the Punjab in 1849, and in the United Provinces five years later, an Irrigation branch, under a Director of Canals, was already in existence in both cases; and to this day the Irrigation and Buildings, &c., branches are more distinct in these Provinces than elsewhere.

Railways.

Railway construction had begun with a contract, in 1849, with the East Indian Railway Company, for an experimental line to cost not more than one million sterling. This line was to be so selected as to form, if so desired, a portion of the future trunk line to the United Provinces. In the spring of 1853 the Government of India laid before the Court of Directors a programme of railways for the Indian empire. A system of trunk lines was recommended, connecting the interior of each Presidency with its principal port, and the several Presidencies with each other. The lines proposed were: (1) from Calcutta to Lahore; (2) from Agra or some similar point to Bombay, or alternatively a line from Bombay by the Narbadā valley, to meet, at some point, the line from Calcutta to Lahore; (3) from Bombay to Madras; (4) from Madras to the Malabar coast. This general plan was accepted by the Court of Directors, and by the beginning of 1856 some progress had been made in constructing most of the lines.

Public Works organization at the end of Lord Dalhousie's adminis-

Thus towards the end of Lord Dalhousie's Governor-Generalship one branch of the present Public Works Department, that which was then concerned with both civil and military Buildings and Roads, had been set on foot throughout the three Presidencies, and an Irrigation branch was in existence in the Punjab and the United Provinces. A Railway

branch had hardly been formed as yet; but the Government of India had entered into arrangements with companies for the construction of certain trunk lines, some of which had been partially completed, while others had been begun or surveyed; and there was a Consulting Engineer at head-quarters to assist and advise in dealing with these matters. In 1854 a Secretary to the Government of India for the Department of Public Works was appointed, the first incumbent of the post being Lieutenant-Colonel W. E. Baker of the Bengal Engineers. The Secretary is shown in the lists of the day as 'vested with the powers of the late Military Board.' The control exercised by the new central office over civil and military and irrigation works was probably less at this time than it became at a later date, owing to the organization being incomplete. The first effort towards a general control over the operations of the Provincial Governments seems to have taken effect in a call for annual budget estimates and progress reports of works. The first series of the latter was for the year 1854, and the attempt of Major (afterwards Sir Henry) Yule of the Bengal Engineers, then Under Secretary, to reduce these from chaos to order forms one of the early Selections from the Records of the Department. The total expenditure by the Government on works and repairs of all kinds for that year was 226 lakhs. Of this nearly a crore was on communications of all kinds, including navigable canals; over 54 lakhs was on irrigation; $56\frac{1}{2}$ lakhs on military works; 3 lakhs on land for railways and their control. In addition 59 lakhs had been spent by the East Indian, and over 9 lakhs by the Madras, Railway Company. Thus the total outlay on public works of all kinds by Government, and by companies with capital guaranteed by Government, was close upon three millions sterling at the current rate of exchange. In the year 1849-50, or only four years before, the outlay, it is believed, did not exceed 60 lakhs.

tration.

Constitution of a Public Works Secretariat and engineering staff.

The staff of engineers was at this time drawn from many sources. The Engineer corps of the three Presidencies supplied the nucleus, and a few more came from the Company's Artillery; some were recruited from the line regiments of the Company's service, and a few officers of Royal regiments in India were employed with permission of the British Government. Lastly, a considerable number of civilians had been engaged in England and in India, and steps had been taken to increase the supply from both sources. The Thomason College at Roorkee, which will be referred to later on, was beginning to supply engineers and subordinates in fair numbers,

and a class for training officers of the British and Indian armies had been opened there. In the year 1862, the first for which there is a reliable record, the strength of Public Works engineers in the Bengal Presidency was about 340, of whom rather more than 100 were Engineer and Artillery officers, about 80 were from British or Indian regiments, and the rest were civilians. There were also about 370 permanent and 40 temporary subordinates on the Engineering establishment.

Present powers of the Supreme and Local Governments in respect to Public Works.

The origin and early development of an organization for the construction and maintenance of Public Works having been thus traced, the various steps may be described by which the organization of the present day has been evolved. The process that has been going on for the last fifty years, and still continues, may be summarized as decentralization of control over details accompanied by consolidation of control over essentials. The details are such matters as the selection and execution of individual works, whether parts of a large project or not, and the creation and filling of the less important appointments. The essentials are concerned with the distribution of the available grants as a whole; the control over the organization and pay of the more important establishments, subordinate as well as superior; the power to sanction large projects, and to make and alter the rules which govern the organization of the Department and its various establishments. In a sense the Local Governments, and the Supreme Government itself, exercise far more extensive control, each in its own sphere, than they did fifty years ago. On the other hand, their powers are in some respects more restricted because they have been defined by fixed rules. They can now sanction only such new permanent appointments as do not carry a salary in excess of Rs. 250 a month, and the exercise of patronage is limited to prescribed sources of supply and classes of employés. The power to sanction works and projects, although considerable, is also strictly limited. Thus the Government of India can sanction estimates for Imperial works up to 10 lakhs, and Local Governments exercise the same power in regard to Provincial works; but for all works costing more than this, whether Imperial or Provincial, the sanction of the Secretary of State is required. In the case of 'productive' public works constructed from borrowed capital, or any work subsidiary thereto, no expenditure may be incurred by Local Governments without the previous sanction of the Government of India. Lastly, the control over the exercise of their powers by both Local and

Supreme Governments is absolutely effective, which was not the case in earlier times.

Development and subdivision of the Government of India Public Works Secretariat.

We have seen how the supreme control over civil and military Buildings and Communications, Irrigation, and Railways was centred, in 1854, in a Secretariat on which the authority of the late Military Boards devolved. As time went on, this central authority was split up, first into three, and later into four, branches. This separation began during the period 1863-6, at the commencement of which a Royal Engineer officer had been placed on special duty in connexion with the accommodation of troops, and a little later was appointed Inspector-General of Military Works, holding charge of the military works business of the Secretariat when not on tour. A few years later (1872) this policy was extended, by placing the military works at all the chief stations of the Bengal Presidency directly under the control of this officer, acting under the immediate orders of the Supreme Government, with a separate system of circles of superintendence and executive divisions. The Provincial form of administration had, in fact, been found unsuitable for these works: the military buildings were not properly maintained, and failures in construction had occurred. In 1866, in order to meet the accumulating business, the Secretariat staff had to be strengthened and three branches formed, each with an Under or Assistant Secretary in charge—the Military Works branch, the Civil Works branch including Irrigation, and Railways. A year later (1867), owing to the impetus given to the spread of irrigation and the intention to develop such works from loans, an Inspector-General of Irrigation was appointed, holding a corresponding position to that of the Military Works officer, already mentioned[1]. In 1870 the development of Railway work led to the appointment of a Deputy-Secretary for each of the three branches above referred to. At the same time the Public Works Accounts department was recognized as a branch of the Secretariat, the Accountant-General becoming a fourth Deputy-Secretary.

Complete separation of Military Works from the Public Works Department.

The process, begun during the period 1863-72, of separating military from civil works made rapid progress in the ensuing ten years; and in 1882 this separation was emphasized by the whole of the business in connexion with the Bengal army being handed over to the Military Department, together with the Military Works branch of the Public Works Secretariat. The

[1] The functions of this officer were subsequently merged in those of the Secretary to the Government of India in the Irrigation and Buildings and Roads branch of the Public Works Department, but an Inspector-General was again appointed in 1905.

rules and system of the Public Works Department were, however, still maintained in regard to the organization of the establishments and the execution and accounts of work, and the staff still consisted of civil as well as military engineers. In 1890 the same system was extended to the Madras and Bombay Presidencies, to Burma, and to certain military stations where the Public Works Department had hitherto remained the sole agency for works of all kinds. In carrying out the separation, the principle applied, so far as possible, was that when one of the two agencies sufficed for the works in any locality, the two should not exist side by side. Thus in some places, such as Baluchistān, where military needs preponderated, the Military Works department undertook both civil and military works, while in certain stations the Public Works, as the preponderating Department, continued to supervise the military works as before. The extension of the Military Works system to the whole of India was connected with the abolition of the separate army organization for the three Presidencies, and the subordination of the whole army system to one Commander-in-Chief and to the Military Department of the Government of India, which was completed in 1895. The Military Works department, which had since 1870 been gradually and increasingly militarized as regards its constitution, was in 1899 placed on a wholly military basis and became part and parcel of the army organization. The status and pay of the officers, who were now all Royal Engineers, were converted from a departmental to a purely military footing, and the name was changed to the Military Works Service. The Director-General was placed on the staff of the army; a Chief Engineer was appointed for each of the great Military Commands; Commanding Royal Engineers were allotted to each district within the Command, and Garrison Engineers to each important work or group of works within a military district.

Thus the Public Works Department, which, as the successor of the Military Board, was in its inception mainly military, has become a purely civil organization, dealing with only a few military cantonments in outlying localities too small to constitute a military unit. At the same time a military organization controls almost all military buildings, such as fortifications and barracks, throughout the country, and some frontier roads. In Baluchistān, as already mentioned, and in the lately constituted North-West Frontier Province, where also military works preponderate over civil, the Military Works Service manages likewise civil works and is for this purpose under the Local

Government. This conversion of the Public Works Department into a civil organization had a marked effect on the strength and distribution of Royal Engineers employed in India. The 250 Royal Engineers formerly allotted for civil and military works in peace time have been reduced to 200; the normal distribution of strength between the military and civil organizations, which twenty years ago was 70 and 180 respectively, has become 130 and 70; and R. E. officers still attached to the Public Works Department are employed mainly on railways, which now furnish the most useful civil experience for the scientific corps of the army.

Decentralization of railway control.

The problem of decentralizing railway control, which from the commencement had rested in some form or other with the Public Works Secretariat, continued to occupy the Supreme Government for twenty years after the creation of a separate Railway branch in the Secretariat in 1866. The first step taken was the institution of several local Consulting Engineers, each responsible for the supervision of companies' lines in the area under his control. But, as the pressure of business increased, it became evident that the control of details hitherto exercised by the Government of India must be delegated to some external authority, either to the several Provincial Governments, or to a Railway Board, or to an officer like the Director-General of Post Offices, exercising very full power and standing in the place of a Local Government. The railways are, with one or two exceptions, Imperial assets and liabilities, and several of them run through more than one Province. Their alignment; the general principles regulating maximum, minimum, and competing rates and fares; and the collection and compilation of statistics, are matters of policy which have hitherto been best dealt with by the Supreme Government, just as, in Great Britain, the Board of Trade deals with similar matters concerning railways in which the Government is not financially interested. It is clear therefore that, in endeavouring to divest itself of unnecessary details connected with the control of railways, the Supreme Government was precluded at the outset from having general recourse to the Provincial Governments, which had hitherto afforded a ready means of assistance when measures of relief from the effects of excessive centralization were in question. Nevertheless the Madras and Bombay Governments, which have always enjoyed a somewhat greater measure of independence than those of the more recently constituted Provinces, were allowed to have local Consulting Engineers who were also Secretaries to the Provincial Govern-

ments; and the same principle has been adopted in the case of Burma, which is from its position a separate railway entity. Elsewhere the Consulting Engineers, who are now three in number, stationed at Calcutta, Lucknow, and Chittagong, were, and still are, directly under the Government of India.

The early attempts to obtain further decentralization between 1871 and 1886 took the form of endeavouring to constitute a single officer, outside the Secretariat, who should exercise the same powers in railway matters as Local Governments exercise in regard to other branches of administration. Accordingly, in 1874, a Director of State Railways was appointed, the Deputy-Secretary for Railways being retained as before, and the control over guaranteed lines through the Consulting Engineers being still exercised directly by Government. A few years later the single Directorate was split up into three controlling separate areas or groups, and, in addition, a Director of Stores was appointed. The objections of the Secretary of State, and the financial stringency of 1879, compelled the Government to abandon this arrangement and to appoint a single Director-General of Railways, exercising certain powers over both state and companies' lines, but included in the Secretariat organization as Deputy-Secretary for Railways. This organization lasted, under slightly different forms, from 1879 to 1897. Practically during the whole of this period the railway business was carried on in the Secretariat, the separate authority of the Director-General being merged in his functions as Deputy-Secretary.

Separation of Civil Works and Railway branches.

In 1896 it was decided to modify the constitution of the Public Works Secretariat. Although the changes were required mainly by the growth of railway business, it was still held desirable that this Secretariat should remain the instrument for the central control over railways by the Government. The single Secretaryship[1], which had existed since 1854, was abolished, and the Deputy-Secretary for Irrigation and Civil Works and the Deputy-Secretary who was also Director-General of Railways became independent Secretaries, each for his own branch of work. The Consulting Engineer with the Government of India became an administrative officer under the title of Director of Railway Construction, while another officer was appointed Director of Railway Traffic, both these officers also

[1] An additional member for Public Works was added to the Governor-General's Council in 1874; but from 1880 this special appointment was in abeyance, the Department being administered by one of the ordinary members, who was, as a rule, selected from the Indian Civil Service on grounds of general administrative experience.

exercising Secretariat functions as Deputy-Secretaries to the Railway Secretary. These changes were accompanied by the delegation of certain powers to Managers and Engineers-in-Chief in the case of state lines; and to Consulting Engineers (or to such Local Governments as supervise these officers[1]) in the case of lines worked by companies.

Creation of Railway Board.

Although some relief was given by these reforms, the great expansion in the railway system, and the consequent necessity for providing more efficient machinery for the rapid disposal of business, led to changes of greater importance than any which have been made since the first establishment of a Public Works Secretariat. It was held that there should be a body of practical business men entrusted with full authority to manage the railways of India on commercial principles, freed from all non-essential restrictions or needlessly inelastic rules. In 1905 the Railway branch of the Secretariat was abolished and its place taken by a Railway Board, consisting of a chairman and two members. While the Government of India reserves to itself the final decision in regard to the preparation of the railway programme and the larger question of railway policy and finance which affect all lines, administrative duties have been generally delegated to the Board. The Board is directly under the new Department of Commerce and Industry, while the Public Works Department, which now deals only with irrigation and civil works, has been transferred to the charge of the member for Revenue and Agriculture.

Control of the Telegraph department.

The Telegraph department was at one time under the control of the Home, and later of the Foreign, Department. It was transferred to the Public Works Department in 1870; and on the division of that Department into two branches dealing with railways, and with irrigation and civil works, the Telegraph department was placed under the latter branch. In 1905 the control was transferred to the new Department of Commerce and Industry.

Buildings, Roads, and Irrigation. Functions of Local Governments and

As regards Buildings, Roads, and Irrigation, the delegation of powers to Provincial Governments has been very complete. Each Local Government has its own Engineering staff, the head of which acts as its Public Works Secretary[2] and is responsible for the up-keep and construction of its irrigation works, its

[1] Madras, Bombay, and Burma.

[2] In Madras, Bombay, Bengal, and the United Provinces there are two Chief Engineers and Secretaries—one for Irrigation and the other for Buildings and Roads, while in the Punjab, where the development of irrigation has been specially marked, there are now (1906) two Chief Engineers and Secretaries for this branch and one for Buildings and Roads.

local boards.

public buildings, and the roads under its control. The functions of the Government of India as regards these works are limited to sanction of important projects, review of progress in the various Provinces, from which it receives annual administration reports, and occasional local inspection of large works or schemes by the Public Works Member or Secretary.

A further measure of decentralization has been the transfer of ordinary roads and minor buildings to District and municipal boards or to the departments occupying the buildings. The extent and manner of this transfer to local authorities varies. In Bengal and Madras almost every District has its own engineer and subordinate staff, paid from and controlled by the District board and quite distinct from the Provincial Public Works establishment. In other Provinces, such as Bombay, the United Provinces, the Punjab, and Burma, although the power of selecting the local works to be executed and, to some extent, the financial control over the local grants rest with the District boards, the supervision and execution of works is almost wholly in the hands of the Public Works Department. As a rule, even in those Provinces where the transfer of control has been least, small establishments are kept up for the execution of minor works and repairs independently of the Department. In the United Provinces this modicum of decentralization has not taken place, or rather the departmental system has been allowed to absorb a local organization which once came into existence. In Bengal and Madras the District board engineers may be either supplied by loan from the Public Works Department or engaged independently. The Supreme Government has, within the last twenty years, done much to encourage the extension of local control over the less important communications and buildings; and at the time the local self-government scheme of 1882 was issued, it contemplated handing over to the local boards, under a sort of financial contract, the care of the less important Government buildings. The chief objection which has hitherto prevented the realization of this project is the economy secured by keeping works under the single control of the Government engineer; and the Finance Committee of 1888, acting on this principle, promoted the unification of Public Works establishments at the expense of local control in the United Provinces. The process of decentralization will become more marked as the District boards acquire more influence and greater competence for their work, and the Government staff becomes more absorbed in irrigation works; and the departmental system, so far as build-

ings and communications are concerned, will gradually contract. It has already nearly disappeared from the larger towns, in which municipal establishments supply its place, and from the great Port Trusts, which have assumed charge of docks, harbours, and in some cases lighthouses, formerly in charge of the Department, and which now maintain complete and efficient establishments of their own. As regards irrigation too, the control of minor works such as the less important tanks has, in Madras, where these are very numerous, been transferred to the Revenue Department[1].

Besides buildings and roads there are other miscellaneous works, such as drainage and water-works of towns, harbours, docks, and lighthouses, which were originally within the scope of departmental operations. But as they have now, for the most part, been taken over by municipal and District boards and Port Trusts, they need not be further referred to. There are, however, two classes of miscellaneous works, connected with coal and iron production and river embankments, which may be briefly mentioned. Coal and iron works.

The coal-mines worked directly by Government are the Warorā colliery[2], in the Central Provinces, under the control of the local Public Works Department, and the Dandot and Khost collieries (the former in the Punjab, and the latter in Baluchistān), worked by the North-Western Railway. The output of the first was 115,000 to 150,000 tons annually, and the profit 10 to 13 per cent. on capital. The other two are small concerns, with an annual output of about 70,000 and 20,000 tons respectively. They supply coal at moderate rates to the railway and are maintained for that purpose.

The Government has, from time to time since 1850, engaged in investigations in Bengal, the Central Provinces, Kumaun, and elsewhere, with the object of manufacturing iron in India. The only works, however, which have been erected up to the present are at Barākar, in Mānbhūm District, within the Bengal coal-field. These were originally started by the Bengal Iron Company, but were acquired by Government in 1880 and worked directly under a manager. In 1890 the property was leased to the Barākar Iron Works Company, which undertook to produce at least 15,000 tons of pig iron annually. Since then various modifications in the contract have been made;

[1] Before the Public Works Department was organized in the various Provinces, the Madras Revenue Board had the supervision of all irrigation works in that Presidency.

[2] The Warorā colliery was closed in 1906, the coal having been exhausted.

and the Company, having decided to enlarge its operations by the manufacture of steel, undertook, in 1903, to manufacture annually 20,000 tons of steel rails and bars, the Government agreeing to pay, for ten years, an annual subsidy of 3 per cent. on the capital cost of plant sufficient to produce that amount, subject to a maximum of £1,500 and a reduction in favour of Government of Rs. 3 on the price of each ton of material purchased. It was considered that the whole of this produce would be used by state and companies' railways.

River embankments.

The most important system of river embankments is that maintained by the Bengal Irrigation branch in Orissa and in the districts watered by the great rivers Gandak, Son, and Hooghly. Some of these are the property of Government; others are maintained by Government for the owners at the cost of the latter. The maintenance of some is regulated by statute, and they date from a time long anterior to the existence of the Public Works Department. The length of embankment thus kept up by the Bengal Government is 2,200 miles, and the area protected nearly nine million acres. The annual charges are about 4 lakhs. River embankments are also maintained to a considerable extent in Madras, Burma, and the Punjab.

Organization of the Public Works departments in the Provinces. Functions of Executive Engineers.

In all the larger Provinces, namely, Madras, Bombay, Bengal, the United Provinces, and the Punjab, there are, and have been for considerable periods, separate Chief Engineers for (*a*) Irrigation and (*b*) Buildings and Roads, while the Burma staff will be similarly constituted at no distant date. This division of functions extends also to the District staff in the United Provinces and the Punjab, while in other Provinces the same staff is, as a rule, responsible for both Irrigation and Buildings and Roads, so far as the latter are under the control of the Public Works Department. Each Province is divided into Public Works 'divisions,' which comprise single civil Districts, or portions or groups of Districts, as the case may be. As a rule, the Buildings and Roads divisions in the United Provinces and the Punjab cover the largest areas. The separate canal divisions in these Provinces are, however, much smaller, inasmuch as they need careful and individual attention. Each division is in charge of an Executive Engineer, who is immediately responsible for the up-keep and improvement of all works within his charge, and whose functions are often of a very varied description. He may be called upon to build a jail or a post office, to repair a bridge, to regulate the supply of water from a canal, or to construct fresh dams and weirs. His functions are specially onerous in times of flood, when bridges

are broken, banks breached, and the head-works of canals threatened or damaged. And when drought is followed by famine, the execution of important relief works falls within his province. At all times he is responsible for the preparation of estimates for repairs and construction, and for the execution of contracts for supply of labour and material.

Executive Engineers have under them Assistant Engineers who are in training for higher functions, and a subordinate staff, the principal members of which are styled Subordinate Engineers, Supervisors, and Overseers. These assistants may be either in subordinate control of a portion of the division or in charge of particular works.

Five or six divisions are grouped into a 'Circle' in charge of a Superintending Engineer. All important estimates are passed on to him for scrutiny, and the inspection of the works and projects in his Circle is his primary duty.

The superior engineering establishment.

The Chief, Superintending, Executive, and Assistant Engineers form the permanent Engineer establishment, or superior staff of the Department, for Buildings and Roads, Irrigation, and Railways. In 1903 they numbered about 760, of whom about 60 were Royal Engineers. Of the rest, 420 were Civil Engineers recruited in Europe, mainly from the Royal Indian Engineering College at Cooper's Hill, while 280 were recruited in India, chiefly from the Indian Engineering Colleges, and of this number nearly 100 were 'Provincial' Engineers appointed under certain special conditions which will be referred to later on. With the great expansion of public works of all descriptions which has taken place in recent years, the present staff has been found inadequate, and it is now proposed to raise the number of permanent Engineers gradually to 900. There are also about 100 temporary and non-pensionable Engineers, employed chiefly on irrigation works in the Punjab and on railways.

The Cooper's Hill College.

During the early days of the Public Works Department the Engineer establishment was recruited in a haphazard and miscellaneous way. In 1870 about two-fifths of its strength was made up of Royal Engineers, while the rest consisted, in proportions roughly equal, of men recruited in India, largely through the Indian Engineering Colleges, and of engineers procured in England under covenant, who were popularly known as 'Stanley engineers,' from Lord Stanley (afterwards Earl of Derby), Secretary of State when this arrangement was initiated. With the diminution of the number of Royal Engineers available for civil works, necessitated by the develop-

ment of a separate Military Works branch, and the increasing magnitude of departmental operations, it became necessary to place the recruitment of civil engineers on a more permanent basis. This was effected by the foundation, in 1871, of the Royal Indian Engineering College at Cooper's Hill, near Staines, the net cost of which has been met by the Government of India. Recent annual recruitment from this source has been about twenty-two men for the Public Works Department, including Railways and Accounts, three for the Indian Telegraphs, and eight for the Forest service. The College engineering course lasted for three years, and was in most cases supplemented by a year's practical training in railway or other engineering works in England. It has now been decided to close the College[1], as considerable expenditure would be necessary to maintain it on the higher standard of efficiency required at the present day, and suitable recruits for the Public Works Department can under existing conditions be obtained from other quarters. Hereafter such recruits will be selected by the Secretary of State, with the assistance of expert advisers, from candidates who have obtained a degree, diploma, or other distinction equivalent thereto at some approved institution for engineering education, and who have had some experience as assistants in the preparation of the designs for, or in the execution of, some engineering work of importance. The age for candidates is between twenty-one and twenty-four years. In 1906 the number of appointments was ten.

'Provincial' Engineers.

The 'Provincial' Engineers, so called to distinguish them from the Imperial Service, i. e. the Royal Engineers and Cooper's Hill men, are natives of India (including in this term domiciled Europeans and Eurasians) recruited from the Indian Engineering Colleges by the grant of a limited number of guaranteed appointments to the most distinguished students of each year, and men promoted from the upper subordinate ranks (Subordinate Engineers and Supervisors). This service was organized on its present footing in 1892, in accordance with the recommendation of the Public Service Commission; and its members perform the same duties, and can rise to the same positions, as their 'Imperial' *confrères*, but draw a lower rate of pay in all grades except that of Chief Engineer, in view of their permanent Indian connexion. Men of this class who

[1] The last entrance examination for the Royal Indian Engineering College at Cooper's Hill was held in 1904, and the course for the candidates then admitted was reduced from three to two years. The College was finally closed in 1906.

entered the superior service before the organization of 1892 came into operation draw the same rate of pay as men of the Imperial Service, but are under inferior leave and pension rules. Some of these are Europeans recruited prior to 1882 and not necessarily educated in India.

The subordinate service. The subordinate executive Public Works service is recruited entirely in India from the local Engineering Colleges. It contains a sprinkling of British soldiers who have undergone an engineering course at Roorkee, while the rest are natives of India in the wide sense above referred to, but with a large predominance of the purely Asiatic element. The subordinate ranks of the Military Works Service are similarly recruited, but here the appointments are reserved mainly for the military element obtained through Roorkee.

The Indian Engineering Colleges. Roorkee. There are four Engineering Colleges in India—at Roorkee in the United Provinces, Sibpur (Calcutta), Madras, and Poona; also Engineering Schools at Rangoon, in Bihār, and elsewhere. Of these the oldest and most important is the Thomason College at Roorkee, which was founded in 1848 by the Lieutenant-Governor of the North-Western Provinces whose name it bears. It was first established as a training school for supplying subordinates for the Ganges Canal; and a few years later it was enlarged and converted into a college, with the object of training civilian engineers for the newly constituted Department of Public Works, and for the instruction of regimental officers in engineering. In 1902 it had a strength of about 320 students, of whom about 125 of various classes pass out annually. The greater number of these find employment with Native States, Railway Companies, local boards and municipalities, and in private industrial concerns, while others enter the Public Works Department as above indicated and also the Survey of India. The college is equipped with chemical, physical, and mechanical laboratories, and with technical workshops, comprising carpentry, foundry, smithy, machinery, and fitting shops, worked entirely by electrical power generated by steam and oil engines within the college grounds. All these form part of the teaching apparatus. There are courses of instruction in civil, electrical, and telegraph engineering for engineers and subordinates; classes for training draftsmen and computers and for mechanics; and industrial classes for teaching the trades of printing and photography in their various branches, and for art handiwork in wood, metal, and stone. The civil and electrical engineer students who compete for a limited number of guaranteed

appointments in the Engineer and Telegraph departments are taken through the usual courses of civil, electrical, and telegraph engineering, the advanced portion of each course being adapted to the particular branch for which each class is under training. Both classes go through an elementary course of workshop training in the several departments. They also go through courses in higher mathematics, mechanics (pure and applied), and elementary chemistry and physics, half the time given to these last being spent in experimental work. The college course for these students is three years. The subordinate classes, including the draftsmen and computers, for whom also a considerable number of appointments are provided, take up the same subjects as the civil engineering students in a more elementary way, and receive a complete training in surveying and levelling. The mechanical apprentice class receive instruction in elementary electrical engineering, and spend half their time in the workshops, their mechanical skill being developed to the utmost. They also receive elementary and theoretical training in mathematics, mechanics, heat, electricity, materials, and construction. The photographic branch of the industrial classes is utilized to a limited extent by the several engineering classes, chiefly for instruction in the ferrotype process for reproducing tracings and in practical photography. In addition to its educational functions, the college gives advice and carries out tests on engineering, technical, and scientific questions for Government and for the public.

Each college supplies the Local Governments with which it is connected with engineer subordinates, as well as with the 'Provincial' engineers selected direct from the colleges; and Roorkee sends its *alumni* all over India.

Railway staff.

The State Railway superior establishment has four sub-branches—Management, Traffic, Locomotive, and Stores. The first is a direct offshoot of the general superior Engineer establishment, from which it is usually recruited, and consists mainly of engineers on rates of pay almost identical with those of Chief and Superintending Engineers, such lower appointments as exist being filled by officers of the grade of Executive Engineer. Several of the superior Traffic officers have been obtained from the Engineer establishment, and such transfers are still fairly frequent; of the rest, the majority were appointed in India, either with or without examination, and the rule at present is to appoint young men of a superior class who have gone through an apprenticeship in subordinate Traffic posts. At one time a certain number of appointments were made

from Cooper's Hill. The superior Locomotive officers are now, for the most part, recruited from England, as a high standard of qualification is required; but qualified men have been, and still are, appointed in India when they can be obtained. Storekeepers are almost invariably Europeans appointed in India. The whole strength of the superior staff is under 120 men. With the exception of officers transferred from the Engineer establishment or otherwise recruited prior to 1881, the majority are non-pensionable and, in the case of the Locomotive branch, are engaged under short covenants, their service being capable of extension by mutual consent when the term of the covenant ends. A Provident Fund liberally subsidized by Government, the terms of which were greatly improved in 1900, supplies the place of a pension for those who were not originally on the pensionable list.

The Railway subordinate staff is very large, including subordinate Superintendents on Rs. 400 and a few on Rs. 500, down to men on Rs. 15 a month. All those appointed since 1881, that is, by far the greater number of the present establishment, are non-pensionable and subject to the same Provident Fund rules as the superior non-pensionable staff. The higher Locomotive subordinates are, as a rule, obtained under covenant from England; other members of the skilled staff are, like the subordinates of the Civil Works branch, obtained from the Indian colleges.

Railway Companies engage their own staff, but frequently enlist the services of Government officers in active service or after retirement. Owing to the financial concern which the Government has in the majority of the Companies' lines, on account of guarantee of interest, profit-sharing, or assistance in some form or other, the approval of the Government of India is required for the salaries of the superior establishment, as well as for the rules regulating their leave and acting allowances, or for any special concessions in regard to pay. Taking State and Companies' lines together, the total number of railway employés of all classes at the end of 1902 was 942 superior officers (mostly Europeans), and about 392,000 subordinates, of whom 13,200 were Europeans or Eurasians.

The Public Works Accounts department.

The accounts of the Public Works Department, including those of State Railways, are audited and consolidated by a special Public Works Accounts department, at the head of which is an Accountant-General with the rank and pay of a senior Chief Engineer. The superior Accounts branch was formerly closely allied to the Engineer branch, and its ranks

were supplied chiefly from that establishment, the organization and rates of pay being identical; but since 1892 it has been more assimilated to the Civil Accounts department. It is recruited partly from Cooper's Hill, partly by examination in India, partly by promotion from the subordinate ranks, and occasionally by the appointment (in India) of men who have acquired special knowledge of accounts outside Government service. The appointments by examination in India are restricted to natives of India in the wide sense of the term. The strength of the establishment is about eighty.

Services of Indian Public Works officers outside the Department.

As already indicated, officers of the Public Works Department, both of the superior and subordinate services, are freely lent to Railway Companies, to District and municipal boards, to Native States, and in recent years, to British Colonies and Protectorates, both for ordinary employ and for the carrying out of special projects. Several officers who originally belonged to the Department, among whom Sir W. E. Garstin and Sir W. Willcocks (both pupils of Roorkee) may be specially mentioned, have had a distinguished career in Egypt.

Public Works finance.

The results of Public Works finance for the period between 1876–7 and 1904–5 are discussed in chapter vi of this volume. It will be seen from Table IV appended to that chapter that in the last-mentioned year Railway transactions, including Government liabilities for guaranteed and subsidized lines, yielded a net profit of 316 lakhs against a deficit of 115 lakhs at the beginning of the period. Irrigation, including Minor Works and Navigation, involved a charge of 62 lakhs at the beginning of the period and a net profit of 43 lakhs at its close, while Civil Works cost 284 lakhs in 1876–7 and 643 lakhs in 1904–5.

The total outlay on public works of all kinds by Government, and by companies interest on whose capital is guaranteed, or which are assisted financially, by Government, was about $9\frac{1}{2}$ crores of rupees in 1880–1, 13 crores in 1890–1, 17 crores in 1900–1, and nearly 22 crores in 1902–3. These amounts do not include the cost of working and maintaining the open lines of railway, which is accounted for under net earnings of railways, and which, for the same years, amounted to 6, $10\frac{1}{2}$ 15, and 16 crores respectively.

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CHAPTER XI

ARMY

THE history of the army of India falls naturally into three periods. To the first belongs the history of the military forces of India under the East India Company; to the second the armies of the Bengal, Madras, and Bombay Presidencies under the Crown; while the history of the third period is concerned with the unified Indian army.

I. The Presidency Armies under the Company

First beginnings.

The Indian army sprang from very small beginnings. Guards were enrolled for the protection of the factories or trading posts which were established by the East India Company at Surat, Masulipatam, Armagon, Madras, Hooghly, and Balasore in the first half of the seventeenth century. These guards were at first intended to add to the dignity of the chief officials as much as for a defensive purpose, and were not really soldiers, but as time went on their military character became slightly more marked. The original 'ensign and thirty men' of Bengal received a reinforcement in the shape of 'the gunner and his crew'; the small force sent out, in 1662, to hold the island of Bombay for Charles II became the nucleus of the military forces of Bombay; and the 'peons' of the Madras factories were formed into bodies which had some sort of military organization. But the origin of the regular native army of India may be more accurately traced to the enrolment of sepoys, in Madras, in 1748, under Major Stringer Lawrence, 'father of the Indian army.' War had broken out in 1744 between Great Britain and France, and the capture of Madras by the latter power in 1746 obliged the Company to commence the formation of a military establishment. It is, indeed, hardly too much to say that we owe our native army to France. In 1676 François Martin, Governor of Pondicherry, obtained 300 native soldiers to supplement his scanty force of Europeans;

but it was not till 1740 that his successor, Dumas, formed a military force consisting of a body of European infantry and 4,000 to 5,000 Muhammadans armed in the European fashion. The brilliant Swiss officer, Paradis, was one of the first to make the fullest use of this instrument of war; and his successes led Robert Clive to follow the example of the French, and to give to the native soldiery a discipline they had never before experienced.

Origin of the Presidency armies.

The military forces of each British Presidency were at first necessarily separate and distinct. Communication by sea or land was long and tedious; and although in early days the Bengal establishment was subordinate to that of Madras, it was soon placed on an independent footing. The geographical situation of the first settlements thus gave rise to local or Presidency armies which were practically independent of each other. The gradual growth of those forces up to the reorganization of 1796 was very similar in character. The nucleus of the white portion of the army in India may be found in detachments of soldiers sent out from England, supplemented by European mercenaries, deserters, and prisoners of war from other foreign settlements, and sailors from the Company's ships. Small bodies of European cavalry were raised; the infantry were formed into companies and battalions; while artillerymen were sent from home and recruited locally, some companies of Royal Artillery being transferred bodily to the service of the Company. The 'European Infantry' of Bombay eventually became the 1st Bombay European regiment (Fusiliers); in Madras (1748) the European companies were formed into a battalion, ultimately to be the 1st Madras European regiment (Fusiliers); while in Bengal the companies were similarly regimented and became the 1st Bengal European regiment (Fusiliers). Swiss companies, 'French Rangers,' formed from the Irish and other regiments of Lally's force after the capture of Pondicherry, and, later, Hanoverians, supplemented the ordinary 'European infantry.' Gradually Royal regiments were sent out to India, the 39th Foot being the first to arrive in 1754: four years later many of the officers and men were received as volunteers into the Company's army, and several King's regiments were transferred to that service.

Clive's reforms.

Before the battle of Plassey (1757) Clive had set to work to improve the native troops. The peons and watchmen. armed and equipped in the native style with swords and targets, bows and arrows, lances and matchlocks, had dis-

appeared. India was swarming with military adventurers, and Rohillas and Rājputs were found ready to enlist in the British service. This material was shaped by Clive into a battalion of sepoys, drilled, disciplined, and clothed on a European model; his first successes soon caused its augmentation; and immediately after Plassey a second battalion was raised. In Madras six battalions were organized in 1759; while in Bombay the congeries of Arabs, Abyssinians, Indian Muhammadans, and Hindus, constituted as an auxiliary to the European battalions, were formed into independent native companies in 1760, and into battalions in 1767. From independent companies commanded by native captains, to battalions with native commandants, supervised by one or two British officers, the organization was successively developed into one with European commandants of battalions and a subaltern to each company.

Extension of the Company's rule and concomitant development of the army.

The forty years following the battle of Plassey witnessed the extension of the Company's rule in every direction. The enunciation of a policy opposed to the aggrandizement of territory, remonstrances from home, and even the desire of the Company's agents in India to refrain from territorial extension were of no avail against the conditions of the country and the circumstances of the time. India was a vast camp. The viceroys of the Mughal emperor and their lieutenants, the independent princes and their feudatories, were all scrambling for power. The military strength of the Marāthās asserted itself in every direction, while the European settlers—at first, and for many years, peaceful traders anxious only to amass wealth, and existing by the sufferance of the Native powers—became formidable factors in the universal struggle for dominion, employing their officers or soldiers on this or that side according to the degree of advantage which seemed likely to accrue to them. A conflict for supremacy between these representatives of European power was inevitable, and gradually the strength of the French and Dutch waned and disappeared before the forces of the English East India Company. The constant campaigns and expeditions in which these forces were engaged naturally led to repeated augmentations, changes, and reorganizations. During this period serious mutinies took place. In 1764 the Bengal sepoys mutinied for higher pay and gratuities, and were only put down by the firmness of Sir Hector Munro. Two years later the European officers conspired because their *batta* had been withdrawn in cantonments, but were defeated by the resolution of Clive.

But even admitting the want of discipline thus shown, nothing is more remarkable than the achievements of our troops in the vast territory which formed the theatre of war, if we consider the material of which they were composed, the great distances, often in unknown territory, they had to traverse, and the frequent failure of supplies and equipments.

Two years after the battle of Plassey the Dutch were overpowered at Chinsura, and later the Nawāb of Oudh was defeated at the battle of Buxar (1764). Soon afterwards the Madras Government joined the Nizām and the Marāthās against Haidar Alī, and a new coalition of the latter with the Nizām was overcome. Then came the Rohilla War of 1773, the wars with the Marāthās in which the Bombay troops were engaged, and during which the wonderful march of General Goddard from the banks of the Jumna to the western coast took place, and the escalade and capture of Gwalior by Popham and Bruce. In 1779 a confederacy of nearly all the chief princes of India to destroy the growing power of the Company was only frustrated by the genius of Warren Hastings, the prowess of the Company's troops, and their good fortune in war. The conflict with the French in Southern India and the brunt of the Mysore campaigns against Tipū fell upon the Madras army, but both Bengal and Bombay troops were engaged. The capture of Pondicherry in 1793 was a final blow to the French power in Southern India; and the advance of the Company's rule along the valley of the Ganges as far as Allahābād, the undertaking of the defence of Oudh and the garrisoning of Cawnpore and Fatehgarh, the conquest of Gujarāt, and the acquisition of territory as the fruits of the Mysore Wars formed a series of operations which carried with them the constant development of the army. The native troops were formed into brigades with proper staffs, the artillery was increased and the power of field guns recognized, Presidency Commanders-in-Chief were appointed, and the military administration was improved in many ways. The chief reorganization of the army took place in 1796; but before entering into the details of this change, it is desirable to consider the character of the native forces of the Company during this first period of their formation, and of the adversaries whom they were called upon to meet.

Constitution of the Company's native armies at

It is not easy to state with exactitude how the Company's armies were then recruited. We know that the times were turbulent, that fighting was a trade followed by thousands, and that violence and the 'art of cutting throats' were

the end of the eighteenth century.

practised at every native court in the country. Many of these roving adventurous spirits naturally found their way to the South, and there is evidence to show that, attracted by good and regular pay and by the magnetic influence of military success, they readily enlisted in the Company's forces. The French had recruited their battalions chiefly from the people of Southern India. We apparently took men farther afield, and Pathāns, Rohillas, Rājputs, Arabs, and Abyssinians were enfolded in the recruiting net. And though the Madras and Bombay battalions contained a considerable share of the inhabitants of the South, it must be remembered that in those days fighting was more or less continuous, and that years of peace had not enervated the martial qualities of men who may now be reckoned as belonging to the non-warlike Indian races. In Bengal, besides the mixed classes of adventurers who ranged themselves under our standards, we gradually drew Hindustānis from Oudh, and from 1776 onward the native army in Bengal was almost entirely recruited from the tract of country between the Ganges and the Gogra, the men being described as mostly Brāhmans and Rājputs, and as 'a brave, manly race of people.' It is not necessary to suppose that the discipline was exact or the training perfect, but both were infinitely superior to anything of the kind possessed by their opponents. The power of marching and manœuvring in solid formations and of concentrating fire, and the use of well-served guns, enabled small bodies of the Company's soldiers to overcome the loosely arrayed hordes of their adversaries.

Native armies of the period.

Allowing for the exaggeration of Oriental historians—a fault not entirely confined to the East—in estimating the numbers of a defeated enemy, it is certain that the native armies of those days were of huge dimensions, dragging in their train ten times the number of the fighting men in the shape of followers, and constituting a series of moving bazars. As a rule these armies had no cohesion. They were merely great bands of men following the standards of their chiefs. In the Mughal armies, for example, the emperor was supposed to have at his disposal fifteen or sixteen Rājās, each of whom could bring 25,000 horsemen into the field. Of these only a fraction was maintained on what we should call the 'establishment,' and the rest were called up when an emergency occurred. Thousands of free-lances were employed, and roving adventurers were ready to bid for any service which offered some pay and more plunder. Ponderous guns were dragged by

oxen, and the lighter artillery by horses, but the service of the guns was slow and inefficient. Corruption and disloyalty, intrigue and indulgence, were rampant in such forces. The chiefs were often playing their own game, while the masses were mutinous or, if not openly disloyal, were only waiting till the happy hour arrived when their course of plunder and rapine could be pursued unchecked. There was no training, no discipline, no watchful commander to snatch victory from the jaws of defeat or to retrieve desperate fortunes by a dogged resistance and firm retreat. When the supreme moment came and the opposing forces entered into the fight, the death or flight of the commander would paralyse the action of the army even in the height of victory, and the safety of the *zanāna* would be more considered than that of the army. Courage was displayed by individuals and by masses, but panics would occur on the slightest provocation. It can be readily seen what great odds there were in favour of the attack, on such loosely bound masses, of disciplined bodies led by European officers, after well-sustained and, for those times, well-aimed musketry fire, preceded by and accompanied with comparatively rapid and efficient fire from field and heavy guns. As time went on the native princes endeavoured to imitate our system of training; but the best characteristics were wanting, while the want of equipment and material and the slackness of discipline operated against the attempt. Led by really good soldiers in their own way, these enormous bodies of horsemen and foot-soldiers were foemen who might succeed by sheer numbers; but directly they half-copied their adversaries they became easier to overcome, because they had neither the training, the European officers, the equipment, nor the tactical skill to cope with the smaller forces of the British, animated by a common spirit and commanded by resolute men. After the French forces in the field had been disposed of, there were, for many years, French officers to train and direct native operations against us. Sometimes they would even be employed on opposite sides by the native princes, as when Raymond was with the Nizām and Perron with Sindhia. But these officers were not sufficiently numerous, nor had they the advantages of the British officers in continuous employment, in material and in power, while their troops, mercenaries like our own, were not regularly paid. Sindhia's army, which had been trained by De Boigne, was perhaps an exception to this rule, and might have become a formidable power had Mahādji Sindhia lived longer.

The Marāthās. The Marāthās did not generally favour the regularization of their troops. They had their own military system, which was one of great mobility based on secure fortresses in their own mountainous country. Constant war had turned a race of husbandmen inhabiting a hilly region into predatory soldiers. Hardy and active, small in stature but wiry, they were formed by Sivajī into corps of light horse and footmen, the former mounted on the tough and enduring ponies of the Deccan, who subsequently ravaged nearly every part of India. Subsisting on the country, these corps were joined by the free-lances who abounded in India at the time, and their common object was plunder. They were accustomed to frugal fare and could endure every kind of hardship and privation. To lay waste the country in which they were operating, to cut off supplies, and to attack their enemy's forces in detail formed the basis of the Marāthā system of warfare. But the genius of Sivajī was far from limiting itself to these predatory efforts. He established a series of fortresses in Mahārāshtra whose garrisons were organized with minute care into combatant, commissariat, and intelligence departments; supplies and ammunition were collected, and a complete system of watch and ward was maintained. Great mobility, combined with security of base, enabled the Marāthās to acquire power over a large part of India, and to create almost a national spirit among a people of one race and religion. But the Marāthās were not soldiers by reason of inherited qualities. The times produced their armies, and the genius of a great captain fostered them; but when they were finally overthrown the Marāthā spearmen passed back into the ranks of the husbandmen from which they had emerged, and it is now no easy task to draw from this race even the limited number of soldiers that we require.

The Sikhs. Another military power arose in the far North to trouble the Muhammadan rulers of India, and eventually the British. Founded as a religious community, towards the end of the fifteenth century, by Nānak, the first Guru; based on monotheistic worship, absence of forms, ceremonies, and castes, and the equal acceptance of good Hindus and Muhammadans by God, Sikhism was at first a blending and union of the best in the two opposing creeds. But in the course of a century the persecution of the Muhammadans converted this peaceful sect into a military and religious commonwealth of magnificent fighting men, engaged in a policy of plunder and rebellion against the Mughals, the strictest followers of the now warlike creed being called Singhs, or 'lions,' and the body receiving the

itle of the Khālsa, the 'pure' or 'elect.' The Khālsa army eventually became a most formidable instrument of war, and only terminated its splendid career after fighting six pitched battles with the British. The admirable qualities of the soldiers of this army were innate. In the early days of their history the Sikh horsemen were renowned, but, in the course of time, the Sikh matchlock-men replaced them to some extent and became equally known for their stanchness and fire-power. Ventura and Allard, Court and Avitabile, did something towards the training of the troops, but the material and the martial ability were there already. In 1809–10 Ranjīt Singh began to form regular infantry of Sikhs, Hindustānis, and Gurkhas. Every battalion had its commandant and adjutant, and was about 700 strong. The administrative government was by means of committees or *panchāyats*, and the army was divided into divisions and brigades. In 1844 the Khālsa army consisted of from 40,000 to 50,000 regulars, with a large force of irregulars and a number of light and heavy guns. At Gujrāt (1849), 'the battle of the guns,' the Sikh power was finally overthrown and the glorious history of the Khālsa army closed. Many of the soldiers gave up the pursuit of arms to follow the plough again, while numbers took service with us; and they and their descendants have proved to be the finest and most loyal soldiers of the native army, second to none in the whole empire for constancy, fidelity, and military prowess.

Reorganization of the Presidency armies in 1796. Bengal.

The year 1796 marked the first general reorganization of the native armies. The European troops, including the white soldiers of the Company, were then about 13,000 strong; the native troops about 57,000, of whom the Madras and Bengal armies had 24,000 each, and Bombay 9,000. The army in Bengal was now organized as follows:—

European artillery, 3 battalions of 5 companies each.
" infantry, 3 regiments of 10 companies each.
Regular native cavalry (replacing two irregular cavalry regiments), 4 regiments of 6 troops each.
Native infantry, 12 regiments of 2 battalions each.

Each native cavalry regiment consisted of 1 field officer in command, 15 officers, including the regimental staff, 4 European non-commissioned officers, 12 native officers, 39 native non-commissioned officers, and 426 troopers. A major-general was appointed to command the cavalry brigade, and the cavalry officers were separated from the infantry and placed on a general cavalry list.

The native infantry regiments were formed by linking existing battalions and amalgamating half-battalions of reduced regiments with these. Thus the new 12th regiment consisted of two battalions, the first comprising the old 12th battalion and the right wing of the 21st, the second the old 17th battalion and the left wing of the 21st. The conversion was haphazard and, in the instance given, resulted in the oldest battalion of the Bengal army, raised by Clive, becoming the second battalion of the junior regiment on the list. The establishment of each regiment of two battalions was 1 colonel commandant, 2 lieutenant-colonels, 2 majors, 8 captains, 22 lieutenants, 10 ensigns, 2 European non-commissioned officers, 40 native officers, 200 non-commissioned native officers, 40 drummers and fifers, 1,600 sepoys, and the usual regimental staff. Each battalion had 2 grenadier and 8 battalion companies. In the organization which had previously existed there was a commandant and adjutant to each battalion, and a subaltern to each of the ten companies. Up to this time, also, the officers had been on a general list for promotion, and the proportion of senior to junior ranks was so low that advancement was slow. Under the new arrangement the officers up to the rank of major were on regimental lists for promotion, the lieutenant-colonels and colonels being placed on separate lists for each Presidency, and an establishment of general officers was instituted. Furlough regulations were introduced, and improvements were made in the interior economy of regiments.

Madras and Bombay.

In the Madras and Bombay armies changes were made similar to those effected in Bengal. The Madras army was reorganized as follows. The cavalry into 4 regiments, of 6 troops each, with 12 officers and 474 natives of all ranks. The artillery into 2 battalions of 5 companies each, with 15 companies of lascars. The native infantry into 11 regiments of 2 battalions each, and 8 companies to each battalion. Each regiment had a colonel, and each battalion 22 European officers, 20 native officers, 50 non-commissioned officers, and 900 privates. A few corps were maintained as extra to the establishment. There were, in addition, 2 battalions of European infantry of 10 companies each. In the Bombay army 12 battalions of native infantry were formed into 4 regiments of 2 battalions each, with establishments similar to those in Madras, but very shortly a fifth and a sixth regiment were raised. A marine battalion was extra, and in 1798 the European artillery was organized in 6 companies, with lascars.

This reorganization was not of a masterly kind. The bat-

talion commanders were not invested with sufficient authority, even the promotion of non-commissioned officers, the approval of recruits, and the granting of leave resting with the colonels of regiments. Proposals of a far more drastic character had been framed by Lord Cornwallis, but had to be modified in view of the discontent they evoked among the Company's officers.

Further expansion of dominion, and armies, after 1796.

The next sixty years saw immense changes in India, which were reflected in the army. In 1798 Lord Wellesley became Governor-General, and to his administration must be traced the final predominance of British power. French influence was extinguished at Hyderābād, the Mysore campaign resulted in the defeat and death of Tipū, the Carnatic became a British province, and British influence was established at the capital of the Peshwā. The campaigns of General Wellesley and Lord Lake against Sindhia and Holkar not only broke the strength of the Marāthās, but dealt a heavy blow at French influence, which had maintained itself in hostile activity in Hindustān after being driven out of the South. Under Lord Hastings, the Nepāl War gave us the Gurkha soldier. Then came the crushing of the Pindāris, the first Burmese and Afghān Wars, the campaigns againt Sind and Gwalior, the two Punjab campaigns, and the second Burmese War. During this period vast territories had been annexed, the larger part of India had become subject to the Company, and the great Native States were influenced and controlled by its agents. These events necessarily resulted in large increases to the Presidency armies. The reduction effected by the reorganization of 1796 was only temporary. The end of the eighteenth century saw fresh augmentations ; and even when the Marāthā War of 1803–5 had terminated and the armies had been placed on a peace footing, their establishment stood, approximately, as follows :—

	British.	Native.	Total.
Bengal . . .	7,000	57,000	64,000
Madras . .	11,000	53,000	64,000
Bombay . .	6,500	20,000	26,500
Total	24,500	130,000	154,500

Local mutinies, 1806–24.

The year 1806 was notable for a mutiny in the Madras army. The sepoys garrisoning the fort at Vellore, exasperated at the introduction of innovations which they considered an attack on their religion, massacred European officers and soldiers. In 1809 the European officers again combined in

mutinous conduct against the Government. This time it was in Madras. The Madras officers were discontented, their allowances had been touched, their pay was less than in Bengal, and the 'Royal' officers monopolized most of the good appointments, while the dissensions between the Governor (Sir George Barlow) and the Commander-in-Chief fanned the flame into a blaze. In one instance (at Seringapatam) the mutiny spread partially to the sepoys, but it was quelled by the energetic measures of the Governor and the Governor-General (Lord Minto).

In 1824 a mutiny took place at Barrackpore. In connexion with the Burmese War, three regiments of Bengal native infantry had been ordered to march by land for Arakan. The service was unpopular and even terrifying to the sepoys; they were ordered to provide bullock transport at their own expense; many of the officers were strangers to the men; and the latter feared they might have to cross the sea. The affair was mismanaged: the men had represented that bullocks were unprocurable, but their petition was treated with contempt and they were shot down and sabred on parade. The court of inquiry recorded that 'the mutiny was an ebullition of despair at being compelled to march without the means of doing so.' It is only fair to add that the Commander-in-Chief strongly controverted the justice of this conclusion.

Reorganization of 1824.

In 1824 the double battalion regiments were finally separated, and the new single battalion regiments were numbered according to the date on which they had originally been raised. After this reorganization, which gave a colonel and 22 officers to each infantry battalion and cavalry regiment, the Bengal army comprised 3 brigades of horse artillery (9 European and 3 native troops), 5 battalions of foot artillery (20 companies), a corps of engineers of 47 officers, a corps of sappers and miners and a corps of pioneers, 2 regiments of European infantry, 8 regiments of regular native cavalry, 5 regiments of irregular cavalry, and 68 battalions of native infantry. It also included local and provincial corps, such as the Rāmpur local battalion, the Cuttack legion, and many others.

The Madras army consisted of 2 brigades of horse artillery (1 European and 1 native); 3 battalions of foot artillery, each of 4 companies, with 4 companies of gun-lascars attached; 8 regiments of native cavalry of 4 squadrons each; 2 battalions of pioneers; 2 regiments of European infantry; 52 battalions of native infantry; and 3 extra and local battalions. The Bombay army had on its establishment 4 troops of horse artil-

lery, 8 companies of foot artillery, a corps of engineers and pioneers, 3 regiments of regular cavalry, 2 regiments of irregular cavalry, 2 regiments of European infantry, and 24 battalions of native infantry.

The enrolment of irregular cavalry was but following the example of our opponents, who always had levies of horse attached to their armies. These horsemen were not clothed or armed by the state, but were on the *silladār*[1] system, each man furnishing his own horse and equipment, while the horse supply was kept up by means of a 'Chandā fund' supported by monthly subscriptions. There were only two or three European officers with each of these corps.

Local corps.

As territorial expansion took place, local corps, more rough and ready than the regular army, were raised for the particular part of the country to which it was desired to afford protection. In 1846 a frontier brigade was raised in the Sutlej States for police and general purposes; the corps of Guides was formed; and in 1849 the 'Punjab Irregular Force' was enrolled for duty on the frontier. In 1851 the establishment of this force was fixed at 3 light field batteries, 5 regiments of cavalry, and 5 of infantry. A garrison company was added in 1852, a sixth infantry regiment (formed from the Sind Camel Corps) in 1853, one mountain battery in 1856, and a second in 1862. The light field batteries were converted into mountain batteries in 1876. The force was originally under the Provincial administration, and was not placed under the Commander-in-Chief until many years later. A local force was raised on the annexation of Nāgpur in 1854, and the 'Oudh Irregular Force' after Oudh was annexed. The latter force disappeared in the Mutiny, while the former was broken up a few years later. By the treaty of 1800 the Nizām of Hyderābād maintained a 'contingent' of 9,000 horse and 6,000 foot, which was officered from the Company's service. In 1853 a new treaty was negotiated, Berār being assigned for the payment of the Contingent, and the force ceased to be a part of the Nizām's army. It was to be maintained for his use, but available for service elsewhere. It consisted of 4 regiments of cavalry, 4 field batteries, and 6 battalions of infantry, commanded by a general officer under the civil authority of the Resident at Hyderābād. Besides this special force, which was thus practically incorporated in the Indian army, many other Native States maintained 'contingents' of troops, representing the military aid which they were supposed to render to the

[1] *Silladār* means 'bearer of weapons.'

British Government. These bodies, aggregating from 30,000 to 40,000 men, were recruited mainly from Hindustān and were of no military value, being poorly disciplined mercenaries without loyalty to the State they served or to the British Government.

Strength of the British and native armies on the eve of the Mutiny.

On the eve of the great Mutiny the establishment of the Company's armies was as follows:—

	British*.				Native.				
	Cavalry.	Artillery.	Infantry.	Total.	Cavalry†.	Artillery.	Sappers and Miners.	Infantry†.	Total.
Bengal . . .	1,366	3,063	17,003	21,432	19,288	4,734	1,497	112,052	137,571
Madras . . .	639	2,128	5,941	8,708	3,202	2,407	1,270	42,373	49,252
Bombay . . .	681	1,578	7,101	9,360	8,433	1,997	637	33,861	44,928
Local forces and contingents .	..	..	..	..	6,796	2,118	..	23,640	32,554
" "	..	..	..	..	..	..	..	(Unclassified)	7,756
Military police .	..		..	..	..	..	..	..	38,977
TOTAL	2,686	6,769	30,045	39,500	37,719	11,256	3,404	211,926	311,038
GRAND TOTAL, British and native troops									350,538

* Including Company's European troops.
† Including irregulars, and local units not in 'forces' or 'contingents.'

Thus the native troops outnumbered the Europeans by nearly eight to one.

The Mutiny of 1857 and its causes.

In 1857 nearly the whole of the Bengal army, regular and irregular, revolted. The Punjab Frontier Force not only stood firm, but proved itself of the utmost value in the suppression of the Mutiny. The Hyderābād Contingent, and the Madras and Bombay armies with few exceptions, remained steadfast; but there was well-founded anxiety at the time, and it is fair to believe that cordial dislike of the Bengal army had a good deal to do with the loyalty of the other forces. This tremendous explosion of military rebellion cannot be traced to any one particular cause. The sepoy army had built up the fabric of the British empire in India; the races we had conquered enlisted freely under our colours in voluntary service, attracted by regular pay, fair treatment, and much active employment. They trusted their British officers, and could rely on their British comrades to support them in the hour of need and to bear the brunt of the fighting. Their pay and pension, and the provision for their families, were sufficiently powerful incentives to such fidelity as would ensure their fighting even

against their own countrymen. In taking service with us, they merely followed their old precedent of fighting under the banner of the conqueror; and if plunder was more restricted than in former days, they had compensating pecuniary advantages, present and prospective. We were justified, therefore, in regarding with some complacency this marvellous army of mercenaries. But as the years went on we forgot how slight were the bonds which united this great mass of Asiatic soldiers to their conquerors; such warnings as we had passed by unheeded; and we ignored the effect of the measures political, domestic, and military, which were carried out to satisfy the craving for improvement according to Western ideals. It has been said that the absorption of Sātāra, Nāgpur, and Jhānsi by right of lapse, and the annexation of Oudh, were among the political causes of the Mutiny; and whatever doubt may be felt as to the effect of the first-mentioned measure, there can be none as regards the last. The greater portion of the native army of Bengal was drawn from Oudh and the adjacent territories; and it is small wonder that they should have been affected when they saw their king deposed, and their privilege, as British sepoys, of precedence for their cases in Native civil tribunals passing away from them. As to the domestic causes of the Mutiny, the religious question, the basis of Eastern life, was the most important. Rites justly considered barbarous had been suppressed; the Brāhmans thought they saw some fell design to lessen their influence; an Act had been passed permitting Hindu widows to marry again; the new innovations of railways and telegraphs were represented as a part of the plot; caste was to be destroyed, and the first step was to christianize the army. Reports were assiduously spread that force was to be used to this end, and years before the Mutiny every kind of report and rumour was abroad that our aim was to subvert the faith of Hindu and Muhammadan alike. Nor did the educational policy of the day, the action of the civil courts, and the depreciation of the land-holding classes lessen the feeling of alarm. If the army had been sound, this seed would have fallen on soil where it could not have fructified. But the army was ripe for rebellion; and many causes, operating through many sources and for many years, combined to bring about its self-destruction.

The native army had a splendid history; but, as with all mercenary Asiatic armies, insubordination had stained its colours from the first. There had been, as has been shown, mutinies in the Bengal and Madras armies, sometimes sternly

repressed and at other times weakly condoned. There had been widespread combinations, and isolated instances, more numerous than have been recorded in this sketch. The deterioration of the army had thus commenced many years before, and the reorganizations which had taken place had done nothing to foster the union of officers and men. It is a mistake to suppose that this or that statesman or soldier prophesied what was coming. Defects were indeed pointed out, and so far back as 1821 the state of the army was described as unsatisfactory: the paucity of British officers, the evils of caste in the Bengal army, the inferior physique of the armies of Madras and Bombay, and the inefficiency of the officers had all been severely commented on. Later, Sir Charles Napier, originally confident in the loyalty of the sepoy, had become mistrustful. On the other hand, in 1851 Henry Lawrence saw no impending danger; although he considered we should take warning from the past, he thought we had 'no present cause of alarm,' and he denounced 'the loud talk, even in mess-rooms, of general insurrection.' The native officers, who had originally great power, had lost this, but it had not been gained by the British officers; for little by little whatever these possessed was taken from them, the authority of the commanding officer becoming so restricted that at last he seemed to be a mere automaton whose strings were pulled by a centralized head-quarters. Of the twenty-five or twenty-six officers nominally on the rolls of a regiment rarely more than half were present, the rest being on the staff, in departments, in civil or political employ, or with irregular corps. Those who remained with their regiments were dissatisfied with their inferior position; and as all promotion was by seniority, the officers arriving at high commands were long past the age for activity and efficiency. Nor were things better in the native ranks. The native officers were, as a rule, ignorant, and too old for their work, promotion being by seniority of the strictest kind. In most regiments, too, Brāhmanical influence was all-powerful and acted perniciously on military discipline. Enlistment for general service was cordially disliked, as the dread of crossing the 'black water' was intense at that time; there was no high reward for native officers; the pay had remained stationary while expenses and duties had increased; and the intimate intercourse between officers and men had diminished. Nor was their military training in time of peace of a kind to raise the tone of the sepoys: it was the merest routine, and ill-calculated to foster a true military spirit.

Other and more general causes were at work in the direction of evil. Success in war had undoubtedly been the most potent attraction to the service of the Company, but the disasters in Afghānistān broke the charm. The stoppage of *batta* also furnished a powerful weapon to discontent. When Sind was annexed the extra allowance, or *batta*, granted on foreign service was discontinued, and in consequence several Madras and Bengal regiments refused to march. Similar difficulties took place on the annexation of the Punjab. Here, too, several Bengal regiments conspired to resist the order stopping the foreign-service allowance they had formerly received, and to refuse their pay. The mutiny was tided over, but only by measures of alternate coercion and concession. The native army was perfectly aware of its own strength and numbers, and of the weakness of the European force, and extraordinary stories were circulated about our difficulties in the Crimea.

An unsound and centralized military system; a large army of high-caste men drawn from one part of the country, confident in its own strength, and acted on by intense religious fears, with other less direct causes, constituted a highly inflammable material which thousands of secret agents were conspiring to ignite. They were helped in a remarkable way by our own action. The old musket was to be replaced by the Enfield rifle, and dépôts of instruction were formed. Cartridges were made 'agreeably to instructions received from home'; and not only had the cartridge paper itself, which was sent out from England, a glossy or greasy appearance, but the end of the cartridge containing the bullet was greased. The previous lubricating compound was composed of coco-nut oil and bees-wax. The new stuff was concocted of one part of bees-wax and six parts of tallow; and there was 'no official knowledge' of what the components as supplied by the contractor consisted, or from what animal's fat the tallow was made. At all events the sepoys thought that the grease used was a mixture of the fat of pigs and cows, the animals most abhorrent and sacred to Musalmāns and Hindus respectively. It was in vain that the suggestion of the men that only wax and oil should be used was adopted; that they were allowed to prepare their own mixture; and that steps were taken to disabuse their minds of any sinister intention against their religion. The mischief had been done, the native officers were afraid of their men, and emissaries to every regiment in the army spread disaffection successfully among an excited and credulous soldiery. Even then, had there been a strong Government and a sufficient European

force, the Mutiny might have been confined within narrow limits. As it was, the Bengal army dissolved itself; a remnant only remained faithful; and when, after two years of fighting, peace and order were restored, a new army had to be organized from the faithful few and from the corps and levies which had been hastily raised.

II. The Armies of India under the Crown

Amalgamation of the Company's European forces with those of the Crown.

In November, 1858, Queen Victoria assumed the direct government of India, and the East India Company practically ceased to exist. Two momentous questions pressed for decision: first, the form of European army which should be adopted for Indian service; second, the reconstruction of the Bengal native army, and the strength, composition, officering, and organization of the native armies generally. A local European army was proposed by Lord Canning, the Governor-General, and by others, because they considered that it would be more fully at the disposal of the Government of India, and more economical; and that officers and men would identify themselves with the country and its inhabitants, providing a source from which officers could be drawn for various civil employments. On the other hand, it was urged with equal strength that the British army should be truly imperial, and ought not to be divided into two parts serving different masters; that the spirit and traditions of the British army could be preserved only by the return of regiments to England; and finally that a local army is worse disciplined and more liable to disaffection than one which is relieved by units. The advocates of a local army were also at a disadvantage because what was known as the 'White Mutiny' contributed to the condemnation of a local European force. The local European troops objected to being transferred to the Crown without their wishes being consulted, and without a bounty. Much discontent, a good deal of open insubordination, and even more covert disaffection, were manifested, and 10,000 men took their discharge.

It was accordingly decided that the European army of the East India Company should be transferred to the Crown. The infantry became regiments of the line; and the Bengal, Madras, and Bombay artillery, and the corresponding corps of Indian engineers, were amalgamated with the Royal Artillery and Royal Engineers. A Royal Commission, appointed to advise on these changes, laid down that the British force should be 80,000 strong, and that the native troops should not exceed it by more than two to one in the Bengal army and three to one

in Madras and Bombay; they also recommended that native regiments should be formed by a general mixture of all classes and castes. The British force was 69,000 strong at first, but sank very low in 'actuals' in some subsequent years. The proportion of British to native troops has been fairly maintained, taking the regular army as a whole: the 'general mixture' system in native regiments was never wholly adopted, and has now ceased to exist altogether.

Conditions of service of British troops in India.

Before passing to the consideration of the native armies as they were organized after the close of the Mutiny, a few words are necessary in respect to the employment of the British army in India. Since the amalgamation of the Company's European troops with the Royal forces, regiments and batteries have been sent to India and relieved on the same system as for any other part of the empire, the tour of service being about nine years for cavalry and sixteen for infantry regiments, and from eleven to fifteen years for artillery units. Royal Engineer, Medical, and Veterinary officers come out to India for a term of five years, but may extend it. While in India, British troops are lent to and paid for by the Indian Government, and are in many respects under Indian regulations as regards pay, equipment, and various other matters.

Charges for British troops paid by India.

The Company had always been liable for the cost of the British troops serving in India; and by the Act of 21 Geo. III, cap. 70, it had 'to pay to the king, in the East Indies, two lakhs of current rupees per annum for each and every regiment consisting of 1,000 men.' In 1788 this was altered to a charge for 'raising, transporting, and maintaining such forces.' From 1834 to 1857 the average payment was about £195,000 annually. In 1860–1 a capitation rate of £10 was fixed, the expenses having largely increased, but this plan was abandoned for one based on 'actual expenses.' Finally, after much discussion, a capitation rate of £7½ was decided on and came into force in 1890–1. This 'capitation rate' is based on the charges for enlisting and training the recruit, the pay of young officers before they go to India, a share of the cost of educational establishments, and the expenses of men sent home time-expired or invalided. It does not include 'deferred pay' or gratuities, and transport and non-effective charges are paid separately. For the 'non-effective' charges (pensions, &c.) a capitation rate of £3½ was paid from 1861–2 until 1870–1, when the Indian share of the valuation of pensions granted annually was capitalized. In 1884–5 a new system was introduced, spreading the charge over a series of years. All changes and

improvements in the pay and organization of the British army necessarily react on Indian finances; the measures introduced, as for example the short-service system created by Lord Cardwell in 1870, are judged best for the whole Imperial Army; and India has to meet any additional expenditure which these may entail, although they may not be specially adapted to her requirements. The ordinary term of a soldier's service in India has been calculated at five years and four months, but bounties are given when it is desirable or necessary to prolong the service of men who could otherwise claim to go home. The details of interior economy, discipline, and equipment of units of the British Army serving in India are much the same as for those serving at home, but, as above observed, there are certain minor differences.

Reorganization of native armies.

When the dying embers of the Mutiny had been stamped out, the Government found itself confronted with the task of replacing, on a sounder basis of organization, a native army which had broken up in rebellion. The Madras and Bombay armies, the Hyderābād Contingent, and the Punjab Frontier Force did not need reconstruction as a consequence of internal disruption; but reorganization was general, and the principles accepted were applied to them also. What had to be dealt with more immediately were the new corps of horse and foot which had been raised, and the remnants of the regiments which had remained faithful.

In 1861 the reorganization of the cavalry and infantry was announced. Many regiments of irregular horse were disbanded or incorporated with others. Some regiments and levies of infantry were broken up; others were transferred to the newly organized police force (see chap. xii), which took over various duties, such as the escort of treasure and the guarding of civil treasuries, hitherto performed by the army. All native artillery was abolished, except the batteries of the Punjab Frontier Force, the Bombay mountain batteries, and the field batteries of the Hyderābād Contingent.

The 'irregular' system.

It was decided to organize the whole native army on the irregular system, and the cavalry (except in Madras) on the *silladār* system. The term 'irregular' was not well adapted to the new plan, which was in every respect 'regular,' except that there were fewer British officers under this arrangement than with the old 'regular' native regiments of the line. In order to remedy one of the crying evils of the past organization, it was resolved that every appointment of a British officer to a native regiment should be deemed a 'staff' appointment, and should

carry with it a staff salary in addition to pay of rank. The powers of commanding officers were at the same time much increased.

The native cavalry regiments were to consist of 420 *sowārs* or troopers, with a due proportion of native commissioned and non-commissioned officers, organized in six troops. Each regiment was to have a British commandant, a second-in-command, two squadron officers, an adjutant, and a general-duty officer. The native infantry regiments were reduced to a strength of 600 privates, with native commissioned and non-commissioned officers, in eight companies. The European officers were: a commandant, two wing commanders, an adjutant, a quartermaster, and a general-duty officer. Cavalry and infantry regiments had therefore six officers each, double the number of the European officer establishment of the old irregular corps, but only a fourth of the nominal establishment of the old regular regiments. The general order effecting these changes was not published till 1863, and it took some time to apply the system to the Madras and Bombay armies.

Reduction in total strength, but increase in British element.

After this reorganization had been completed, the native armies stood as follows:—

	Cavalry regiments.	Artillery batteries.	Infantry battalions.
Bengal army . .	19	...	49
Madras army . .	4	...	40
Bombay army . .	7	2	30
Punjab Frontier Force .	6	5	12
Local corps . .	2	...	5
Hyderābād Contingent .	4	4	6

This reduction did not take place at once, and even in 1864 several corps existed which were ultimately reduced. In that year the armies in India had an aggregate strength of 205,000 men, of whom 65,000 were British. As compared with the establishment prior to the Mutiny, there was thus a decrease of about 40 per cent. in total strength, but an increase of 60 per cent. in the number of British troops.

Organization of the Staff Corps.

The question of officering the reorganized native armies was an important and difficult one. It was solved by the institution in 1861 of a Staff Corps for each of the three Presidencies, to provide a body of officers 'by whom various offices and appointments hitherto held by officers borne on the strength of the several corps or regiments' of the Indian forces should in future be held. These Staff Corps were thrown open to British as well as Indian officers, the Company's military college at Addiscombe was closed, and henceforth all fresh appointments to the Indian army were to be made from the British army. In recent years cadets from Sandhurst have also

been posted direct to an unattached list for the Indian army, and, after a year's duty with a British regiment in India, have been appointed to native regiments. Promotion in the Staff Corps was to be governed by length of service. Officers, after twelve years' service (subsequently reduced to eleven), were to become captains; after twenty years' service, majors; and after twenty-six years' service, lieutenant-colonels; while five years in this rank gave the brevet rank of colonel. The Staff Corps were to provide for the native regiments and for the staff and army departments, as also for civil and political appointments in which military men might be required. The introduction of this system was at the outset attended by considerable difficulty. Officers already in employ had the option of joining the Staff Corps or remaining on the old conditions, and there was a large number of surplus officers arising from the disbandment of regiments, or from reductions in the strength of the regimental establishments. At the same time the 'cadres' of the old regiments were retained, resulting in the unduly rapid promotion of those who had not joined the Staff Corps, and in their early attainment of 'colonel's allowances' (which had now been granted to every lieutenant-colonel after twelve years' service in that rank), a special prize corresponding to the colonelcy of a British regiment, and carrying with it emoluments amounting to £1,124 per annum. These allowances were termed 'off-reckonings,' and were a survival of the far-off days when the colonels of regiments received contract allowances for the clothing of their men, a custom obtaining in the British and Indian services alike. For many years the result of the above measures was a long list of officers drawing colonel's allowances, and an unsatisfactory state of regimental as contrasted with Staff Corps promotion.

Period between 1860 and 1878.

Between 1860 and 1878, the native armies were not engaged in any great campaign. There were many expeditions on the north-west frontier; the China War of 1860; various expeditions on the eastern and north-eastern frontiers; the Abyssinian War of 1867–8; the expedition to Perak; the dispatch of an Indian contingent to Malta in 1878; but no field operations on a large and important scale. The period was comparatively restful, and much was done to consolidate the new armies and to meet the difficulties which reorganization had brought in its train. The establishment of the three armies remained practically the same, but many changes took place in dress, equipment, and armament: the Enfield rifle was issued to the native troops, and in 1874 the first issue of the Snider rifle was made.

The strength of European officers with native regiments was increased to seven, and in 1874–5 one or two 'probationers' were added to each corps to take the place of absentees. In 1875–6 a review of the 'irregular' system took place. The conclusions arrived at were that it had been successful and that the establishment of officers was sufficient; but as the cost of living had increased during the previous twenty years, certain increases in allowances were given to native officers and soldiers, and the pension rules were revised.

The Army Commission of 1879. Reduction in the number of native regiments and British batteries.

The Afghān War of 1878–80, involving the employment of a considerable army and a strain upon the military resources, was fruitful of lessons in every branch of the art of war and of army organization. Many defects had been observed, and the Army Organization Commission of 1879 was assembled by Lord Lytton not only to devise means for the reduction of military expenditure, but to test how far the existing system had been found adapted to the requirements of troops on active service. The British forces in India at this date consisted of 9 cavalry regiments, 50 infantry battalions, and 86 batteries of horse, field, heavy, garrison, and mountain artillery, while the composition of the native armies was much the same as that indicated on page 345. The British troops numbered nearly 65,000, the native troops about 135,000.

The Commission made a most exhaustive and comprehensive inquiry which eventually gave rise to many important reforms, but the only immediate outcome was the reduction (in 1881) of four regiments of native cavalry and eighteen of native infantry, and an addition of one British officer to each of the remaining corps. The strength of each regiment was at the same time generally increased from 499 to 550 of all ranks in the cavalry, and from 712 to 832 in the infantry. This gave as nearly as possible the same total establishment as previously existed, and the Commission were satisfied that increased efficiency and fighting power would be gained.

The reductions were distributed as follows:—

	Native cavalry.	Native infantry.
Bengal army	2	5
Madras "	...	8
Bombay "	1	4
Punjab Frontier Force . .	1	1

There was also a net reduction of eleven batteries of British Artillery.

Other changes.

Meanwhile the way was being prepared for the larger reforms proposed by the Army Commission and the Government of

India which had not been accepted by the Secretary of State. In 1864 the three Presidency departments of military account and audit had been consolidated into one, under an Accountant-General attached to the Military Department of the Government of India. In 1876 the general management of the three Remount departments was placed under one head. In 1884 the three Ordnance departments, which had hitherto been entirely separate and had conducted their business on different methods, were amalgamated under one head and placed under the Government of India. A partial reorganization of the transport service was also carried out, and commissariat regulations were compiled for all India. The enlistment of certain low-caste Hindus, whose military efficiency had not been satisfactory, was prohibited; and an endeavour was made to carry out the principles of segregation by eliminating Punjābis from Hindustāni regiments and vice versa, while the mixed troops and companies of the Punjab Frontier Force were replaced by 'class' troops and companies. Pioneer corps were instituted for Madras, and Army Hospital native corps were raised. After the evacuation of Afghānistān, the army saw some active service in an expedition against the Mahsūd Wazīrs, in the Egyptian campaign of 1882, and at Suākin in 1885.

Increase of the British and native armies in 1885–7.

The year 1885 witnessed three events of the first magnitude: the preparation of a large force for the defence of the north-western frontier, the commencement of an increase of the army, and the third Burmese War. The first measure was necessary in consequence of the conflict between Russian and Afghān troops at Panjdeh. A force over 65,000 strong, with 168 guns, was mobilized, and an immense quantity of supplies and transport was collected. Fortunately peace was preserved, but it was felt that the army in India was no longer strong enough for the task which might be before it. After the Mutiny the accepted policy had been the reduction of the native armies to a strength sufficient for internal security and the local defence of the border: the possibility of war with a great European power now rendered it necessary to increase the number of both British and native troops. It was decided that each of the nine regiments of British cavalry should receive a fourth squadron; the artillery was to recover the eleven batteries reduced in 1881; the British infantry was to be augmented by three battalions, and every battalion was to have 100 men added to it. The total increase amounted to 10,600 men.

The native armies were to be increased in the following manner: three new cavalry regiments were to be raised, two in

Bengal and one in Bombay; and a fourth squadron was to be added to all the Bengal and Bombay cavalry regiments, while the Madras cavalry were to have a regimental strength of 489 in place of 387 of all ranks. The native mountain batteries were each to have six instead of four guns. The native infantry of the Bengal army was to be increased by 9 battalions: namely, 5 of Gurkhas, 2 of Sikhs, and 1 of Dogrās, with 1 of Mazhabi Sikhs as pioneers, while every battalion was to be 912 instead of 832 strong. Various subsequent additions, such as two native mountain batteries, brought up the increase of the native army to 20,000 men. These increases, which were completed in 1887, were calculated to cost about two millions sterling annually, and when they had been carried into effect the strength of the British and native armies was as shown below:—

	British.					Native.				
	Cavalry.	Artillery.	Royal Engineer Officers.	Infantry.	Total.	Cavalry.	Artillery.	Sappers and Miners.	Infantry.	Total.
Bengal .	3,786	7,084	203	34,442	45,515	15,202	1,508	1,438	58,944	77,092
Madras .	2,524	2,658	35	11,143	16,360	2,146	271	1,495	28,737	32,649
Bombay .	631	2,947	45	8,104	11,727	4,667	452	935	22,490	28,544
Local corps .	..	..	..	..	..	1,598	..	..	5,669	7,267
Hyderabad Contingent	..	..	..	..	..	2,000	536	..	5,004	7,540
TOTAL	6,941	12,689	283	53,689	73,602	25,613	2,767	3,868	120,844	153,092
GRAND TOTAL, British and native troops										226,694

The third Burmese War in 1885, which was followed by a series of further operations against guerilla bands and dacoits, resulted in the annexation of Upper Burma, so that the increased garrison which was there necessary absorbed a considerable portion of the augmentation above referred to.

Introduction of the linked battalion and reserve systems in the native armies.

In 1886 the battalions of the native armies were linked together in regiments of three, or sometimes two, battalions each. The linked battalions could thus supply trained men to battalions in the field, whereas under the single battalion system previously in existence battalions in the field could only be strengthened by volunteers from other corps or by recruits. In 1888 regimental centres were fixed upon for these groups, and were placed at such stations as it would be obligatory to garrison in case of a large mobilization of the army.

It was intended that one battalion should always be at the regimental centre, so that the men might periodically return to their own neighbourhood.

Another military reform, instituted at the same time as the linking of battalions, was the formation of a reserve for the native army. Two such forces were formed, the active and the garrison reserve. The latter was to comprise men pensioned after twenty-one years' colour, or colour and reserve, service; but this has been allowed to die out as, since no training was exacted, the men were found to be useless. The active reserve was to consist of men who might be allowed to pass to the reserve with not less than five (since reduced to three) or more than twelve years' colour service (now a thirty-two years of age limit). The numbers were originally limited to 218 for an infantry battalion in the Bengal and Punjab armies, 160 for those of the Madras and Bombay armies, and 300 for the sappers and miners. This reserve system was later on extended to native mounted batteries and to native artillery drivers; also to railway employés attested to serve with military railway companies. In 1904 the reserve amounted to about 25,000 men; and it was then decided to increase its strength gradually to 50,000 men, reducing the reserve pay from Rs. 3 to Rs. 2 a month, and also to extend the reserve system to *silladār* cavalry regiments. Arms and accoutrements are kept in the arsenals and issued at the periods of training, and kits are stored at the regimental centres. Reservists were at first called up annually for one month's training, but in future they will come up every two years for a two months' period. Reservists obtain a pension of Rs. 3 or Rs. 3-8 a month after twenty-five years' total service. The reserve system has worked very well in Hindustān and the Punjab, and fairly so in Bombay, but has never taken strong root in Madras. Opportunity was at the same time taken to improve the rates of good-conduct pay and to revise the pension rules, an ordinary pension being given to all soldiers on completion of twenty-one years' service; the scale of gratuities was also made more liberal.

Constitution of Burma military police and Burma battalions of the Madras army.

Two further measures were specially consequent on the Burma War. In March, 1886, levies and military police, composed of Gurkhas, Punjābis, and Hindustānis, were raised for service in Burma. These battalions were increased until they attained a strength of 18,500 men, which on the pacification of the country was reduced to about 16,000, and they now constitute the Burma military police. The second measure did not come into force until 1893, when, in order to improve the material of the Madras army for service in Burma, local battalions were

formed of Sikhs, Punjābi Muhammadans, Gurkhas, and other races; and in the course of a few years eight battalions of the Madras army were thus reconstituted. An elimination of the lower classes of Hindus had already taken place in the Bengal army, their place being filled by Rājputs, Jāts, and others.

Constitution of Imperial Service troops.

In the Afghān War of 1878-80 contingents from some of the Native States of the Punjab did good service in the Kurram valley; and when war seemed imminent in 1885, the Native princes of India placed the resources of their States at the disposal of the Government of India. From this offer arose (in 1889) the body of 'Imperial Service troops,' which are under the control of the States furnishing them and are commanded by native officers, subject to the supervision of British inspecting officers who are responsible to the Foreign Department of the Government of India.

Other changes during this period.

Many other changes and improvements were brought about during this period. We can only mention the most important, and in doing so must necessarily anticipate the course of events in some cases. As has been explained in chapter x, the execution and supervision of military works, which had formerly been carried out by the Department of Civil Public Works, was, between 1882 and 1890, transferred to a separate Military Works Department; and this in 1899 was completely militarized as the Military Works Services.

The first step in the amalgamation of the Presidency Commissariat departments was made in 1885, when a Commissary-General-in-Chief was appointed. In 1886 a plan of mobilization was started, and that year also saw the transfer of the Punjab Frontier Force from the control of the Punjab Government to that of the Commander-in-Chief. In 1888 the departments of the Adjutant-General and Quartermaster-General in the military districts were amalgamated, the intention being to form a higher staff for important military work, routine duties being relegated to a garrison or station staff. In 1890 the number of trans-frontier men in the army was increased. In 1891 the four regiments of Madras cavalry were reorganized in three regiments of four squadrons each. In the same year the three Staff Corps were amalgamated into one 'Indian Staff Corps'; four old 'levy' regiments were re-formed with better material; the pay of non-commissioned officers and *sowārs* of the native *silladār* cavalry was raised by Rs. 4 per mensem; and four years afterwards the pay of all non-commissioned officers and men in the native artillery, the sappers and miners, and the native infantry was raised by Rs. 2 per mensem,

the pay of the sepoy becoming Rs. 9 instead of Rs. 7, a figure at which it had remained for a great many years. This latter measure was extended to the Madras cavalry, which is not on the *silladār* system. In 1891 recruiting dépôts for the various classes of which the Bengal army is composed were established, and placed under District recruiting officers, a system subsequently applied to Madras and Bombay. The Bombay army likewise shared in the effort to recruit better material, two regiments being reconstituted as Baluchistān frontier regiments, composed of Pathāns, Hazāras, Baluchis, and Brāhuis, Punjābi Muhammadans, and Sikhs. A little later a further change took place, undesirable classes being eliminated, and the 'class company' system introduced in lieu of the 'general mixture' organization. A similar measure was, after prolonged investigation and discussion, applied to the Madras army.

In 1891–3 the native infantry were armed with the Martini-Henry rifle, the Lee-Metford magazine rifle having been issued to the British troops. In the latter half of the decade 1885–95, assistance was given to the Imperial Government by the employment of soldiers from the Indian army in temporary service in Central Africa, East Africa, and Uganda, and also in West Africa. In 1893 the sixteen Hindustāni regiments of the Bengal army became 'class' (instead of 'class company') regiments, composed of Brāhmans, Rājputs, Muhammadans, Jāts, and Gurkhas. This change was introduced because the class system attracted a better stamp of men, regiments were more contented, a sound spirit of rivalry between corps was created, and the separation of classes was felt to be more consonant with the general policy than the mixture, for example, of Brāhmans and Rājputs in one body. In the same year the Intelligence branch of the Quartermaster-General's department at Army Head Quarters was reorganized and strengthened.

During this period the army was engaged in military operations in Burma for several years; on the eastern and north-eastern frontier against the Chins and Lushais (1890–3); in Manipur (1891); and against the Abors (1894). The north-west frontier was the scene of the Black Mountain expedition in 1888, of the two Mīrānzai expeditions in 1891, and of the Hunza Nagar fighting in the same year. Fighting in Wazīristān in 1894–5 was followed by the defence and relief of Chitrāl in 1895.

Abolition of the

The year 1893 is memorable for the passing by Parliament of the Madras and Bombay Armies Act (56 & 57 Vict.,

cap. 62), abolishing the office of Commander-in-Chief in those armies, and withdrawing the power of military control hitherto exercised by the Governments of the two Presidencies. This measure, which took effect in April, 1895, brings to a natural conclusion the section recounting the changes which took place in the Presidency armies after the great Mutiny of 1857. Of lower strength than their predecessors, but more powerful in efficiency and armament, their quality was tried in many campaigns; the general reorganization consequent on the reconstruction of the Bengal army was followed by alternate periods of rest, reform, and reduction; and then by increase, improvement, and the unification of the great departments of military business. The time was now ripe for the consolidation of military control and the application of a more modern system of army administration. separate Presidency armies.

III. Unification of the Armies and present Military Organization

The Army Organization Commission of 1879 had recommended the abolition of the Presidency army system, and the division of the Indian army into four territorial army corps under one supreme authority. The cause of the existence of the separate armies has been explained: they were the actual result of military establishments formed at three independent bases far distant from each other. In the course of years it had come to be an anachronism that the Central Government should have but little authority, and the Commander-in-Chief in India none at all, over the native armies of Madras and Bombay, which were, moreover, largely stationed outside those Presidencies. The evils of this state of things were many and varied. But this was not all. The Bengal army, occupying an area of immense extent, had become unwieldy for a single command and was in danger of becoming homogeneous. It was accordingly felt that the division of the army into four great parts, primarily connected with the Punjab, Hindustān proper, Bombay, and Madras, would best prevent its fusion into one huge body of soldiers. As already stated, various measures subsidiary to this end, such as the unification of military departments, had been gradually carried out before the Madras and Bombay Armies Act was passed. After much deliberation and discussion, the new system came into being in April, 1895, and India was now divided into four territorial commands, Organization of the old Presidency armies into four commands.

named after the Punjab, Bengal, Madras, and Bombay. Speaking generally, the Punjab command covered the Punjab and what is now the North-West Frontier Province; the Bengal command included Assam, Bengal, the United Provinces, and parts of the Central Provinces and Central India; the Madras command comprised the Madras Presidency, the British garrisons in Hyderābād and Mysore, and Burma; while the Bombay command included the Bombay Presidency (with Aden), Baluchistān, and Rājputāna, and parts of Central India and the Central Provinces. The troops in these commands comprised the British soldiers stationed therein and the native troops naturally belonging to the areas or specially attached thereto. Each command was placed under a Lieutenant-General, who was supplied with a complete army and departmental staff, and was given power to transact a certain amount of business which had formerly been dealt with at Army Head-Quarters or by the Military Department. Before further describing the constitution and organization of the army as it existed in 1904, we may note the successive changes introduced since 1895.

Subsequent changes in composition of commands and regiments.

The period 1895–1903 was marked by important military operations. Between 1895 and 1898 the campaigns on the north-west frontier engaged a large body of troops, British and native; 1899–1900 saw the dispatch to South Africa of a force of British troops from India which saved Natal, and the supply of large quantities of stores of all kinds; in 1900–1 the expedition to China took place; and in 1901–2 operations in Wazīristān.

It is not possible to deal in detail with the changes and improvements made during the last few years, but progress has been very marked. The causes of this increased activity are —first, that owing to financial difficulties and the frontier campaigns of 1897, many desired reforms and improvements had been postponed; secondly, these campaigns taught many lessons which had to be considered, while the march of events in Central Asia and the Far East showed that India is now more than ever connected with world-politics; and thirdly, the South African War conveyed an object-lesson of the greatest significance. To deal first with changes in the army, and its composition. In 1897 certain local corps, hitherto under the Foreign Department, viz. the Central India Horse, the Bhopāl battalion, the Deoli and Erinpura Irregular Forces, and the Merwāra battalion, were brought under the Commander-in-Chief and allotted to the commands according to their geographical situation. The Mālwā and Mewār Bhīl corps were

exempted from this change, but these corps will probably be converted into military police. The cavalry and infantry of the Hyderābād Contingent were reorganized on the class squadron and company system. In 1898–1902 the establishments of British and native mountain batteries were strengthened, and two native mountain batteries and five native infantry battalions were added to the Punjab and Bengal commands. The infantry battalions were raised to replace five corps lent to the Imperial Government for service at colonial garrisons, such as Mauritius, Ceylon, and Singapore. Indian troops were first employed in colonial garrisons in 1898, but the larger measure arose from the call made on India during the South African War and is now accepted as a permanent arrangement. Other important changes have been the reconstitution of four regiments of the Bengal portion of the army, three as Muhammadans of the Eastern Punjab and Hindustān, and one as a pioneer regiment of Lobāna Sikhs and Jāts; and the incorporation of the Punjab Frontier Force as an integral part of the Punjab command. The Madras army has undergone considerable changes. In 1895 Telugus were eliminated, and the remaining material gradually improved. Between 1902 and 1904 two infantry battalions were reconstituted from Moplahs, and one battalion was converted into a Gurkha corps, while nine others have been transformed into battalions of Punjābis, leaving the locally recruited Madras regiments at thirteen. The former material of a regiment of Madras cavalry has also been replaced by a large infusion of men from Rājputāna and the Punjab. The Bombay army has not undergone any important change, but its material has been gradually improved by the elimination of the less efficient elements. The Bombay sappers were increased by two ordinary companies in 1902–3, and by a fortress company for Aden. The Hyderābād Contingent was broken up in 1904, in consequence of the arrangement concluded with the Nizām in respect to Berār. Its cavalry was formed into three regiments of four squadrons, instead of four regiments of three squadrons each, and was transferred to the Bombay command; the field batteries were abolished; and the six battalions of infantry were transferred to the Madras command. Aurangābād and Bolārum are the only old stations of the Contingent now retained.

Other changes, 1896-9.

In 1896 the three Presidency Medical services were amalgamated under a Director-General. In 1897–8 the British infantry in India was reduced by one battalion, twenty men

Amalgamation of the Indian Medical services.

being added to each of the remaining fifty-two battalions; the military factories were placed under the direct administration of the Director-General of Ordnance; and the issue of cordite was commenced to the artillery. Sanitary officers were appointed to commands and to Army Head-Quarters; and a messing allowance of 3*d.* per diem to British soldiers, following the measure introduced in the home army, was granted in India. In 1899 it was decided to withdraw regular troops from the Khyber, and from the Kurram, Tochi, and Shahūr valleys, and to garrison these outlying positions by militia or military police. These changes, which were intended to effect a greater concentration of the regular forces on the frontier, have since been gradually carried out.

Withdrawal of regular troops from outlying frontier posts.

The years 1899–1901 witnessed special activity in remodelling and improving armament, equipment, mobilization, and defences, while many measures then resolved upon were carried out in 1902 and 1903. In 1900 a considerable change took place in the regimental system of the native army, by the introduction of the 'double company' organization in place of 'wings' or half-battalions. The change followed the squadron system of the cavalry. While retaining the native officers in command of companies, it linked the eight companies of a battalion in four pairs of double companies, each in command of a British officer, the object being to give more definite responsibility to the British officers and to obtain a more manageable unit than the 'wing' of four companies. Between 1900 and 1904 about 400 British officers were added to the native army, so as to increase the number on duty with cavalry and infantry regiments. In January, 1903, the designation 'Indian Staff Corps,' as applied to the British officers with the native army, was superseded by the more appropriate term 'Indian Army,' since most of these officers are on regimental and not on staff duty. In 1900 the reorganization of the transport service was finally authorized. The idea was to substitute organized corps and cadres of camel, mule, and cart transport, commanded by European officers, for the unorganized transport allotted to regiments and to dépôts, and, by means of 'enumeration officers,' to ascertain the resources of the country so that it might be possible to expand the peace transport to meet the exigencies of war. The re-armament of the British infantry with the Lee-Metford rifle was completed in 1899, the cavalry having been armed with the Lee-Enfield carbine in 1897. In 1900–1 the ·303 magazine rifle was introduced for the native army, and the re-armament of the regular

Introduction of the double company system in native infantry regiments.

Large additions to the Staff Corps, and change of its name to Indian Army.

Improvements in transport.

Re-armament.

troops was completed in 1902-3. A new mountain gun was introduced; many improvements were made in the field artillery; a large number of machine guns were obtained; a cordite factory was established; additional ammunition was issued for practice; and the coast defences were improved. The year 1900-1 also saw the inception of other measures of reform, such as mounted infantry schools; improvements in the Commissariat department, whose title was now changed to 'Supply and Transport Corps'; increase in artillery horses and the establishment of mountain batteries; development of the plan of mobilization, and increased equipments and stores; the completion of frontier defences and communications; simplification in the methods of military audit and accounting; and reform of the Horse-breeding and Remount departments. The commissariat service has received special attention of recent years; besides various reforms in its internal economy, the staff of officers and subordinates has been increased, and their pay and prospects improved; and new administrative appointments have been made. In a cognate business, the supply of fodder, milk, and butter, great progress has been made in the establishment of grass and dairy farms. In 1901 promotion in the Staff Corps (now 'Indian Army') was accelerated, the ranks of captain and major being attainable in nine and eighteen years instead of in eleven and twenty years. In April, 1902, consequent on the grant of increased pay to the army at home, the pay of the British soldier in India was increased by 2*d.* a day; and in April, 1904, a further increase of from 4*d.* to 7*d.* a day was given, in the form of service pay, augmenting Indian military expenditure by £700,000 annually. In 1902-3 the scattered ambulance establishment was organized into an Army Bearer Corps. Three howitzer batteries were added to the artillery; a corps of frontier garrison artillery was formed from the existing native garrison battery; and various improvements were made in the Army Hospital Corps, in the nursing service, and in the body of military Hospital Assistants. The 'brigade' system for mounted artillery—i.e. the association of three field or two horse-artillery batteries, under a lieutenant-colonel, as a tactical and administrative unit—was introduced, and ammunition columns were reorganized.

Increase in pay of British troops.

Reform in the artillery.

Other reforms.

In 1903-4 various further measures were carried out. The transport organization was more fully developed by the establishment of thirteen additional mule corps and cadres, and horses were partially substituted for bullocks in four heavy

batteries. In every battalion of British infantry, and in the majority of native infantry battalions, not less than 160 men are to be trained in mounted infantry duties, so that on mobilization two battalions of four companies each (one British and one native) will be available for each division. Coast defences were, and are still being, developed in pursuance of a definite scheme. A consecutive renumbering of native cavalry and infantry regiments, which had previously been numbered in the separate series of the old armies, was carried out. A military railway company was added to the army, and a second company has since been raised. Burma was separated from the Madras command, and constituted an independent military charge. The Ordnance department was greatly developed, in pursuance of the policy that India should be self-supporting as regards munitions of war.

Separation of Burma from the Madras command.

Improvement in health of troops.

In a sketch of this kind it would be impossible to do justice to the great improvement which has taken place in the sanitary conditions of British and native troops in India. A more rational system of clothing and head-protection, more temperate habits, vastly improved barracks, better opportunities for recreation and exercise, better food, improved water-supply and drainage, greater care of the soldier when sick and attention to hygiene generally, the development of stations and hutted camps in the hills to which more than a third of the British army proceed in the summer months, the practice of sending fresh arrivals from England to the hills, have all contributed to the better health of the soldiers in India, and that of their native comrades has also undergone great improvement[1]. Nor must omission be made of the fact that the moral, as well as the material, welfare of the British soldier has been advanced. The command of Lord Roberts (1885–93) will ever be associated with this progress, and especially with the establishment of soldiers' institutes.

Distribution and strength of army, 1903.

The result of the changes introduced in 1895, and of subsequent developments, was, as we have seen, the division of the army of India into four large commands, or territorial forces, with the independent military district of Burma, which became practically a fifth command. These commands were subdivided into military districts, but they were not in any way organized army corps, nor were the troops in the military district organized in divisions and brigades. The total number of regular troops in each command in 1903 is given below :—

[1] For statistics, see Vol. I, chap. x (Public Health, &c.).

Command.	Number of British troops.	Number of native troops.	Total.
Punjab	20,051	53,496	73,547
Bengal	24,048	33,191	57,239
Bombay	16,209	34,843	51,052
Madras	9,440	29,630	39,070
Burma	4,422	6,781	11,203
Total	74,170	157,941	232,111

The reserve of the native army numbered about 25,000 men[1], and the auxiliary forces (British volunteers, Imperial Service troops, frontier militias, and military police) about an additional 76,000 men.

New organization of main and divisional commands.

A new scheme of military organization, which owes its inception largely to the present Commander-in-Chief, Lord Kitchener, is now, however, in process of development. The leading features of this scheme are the recognition of the fact that the main function of the army is the defence of the north-west frontier, and that the army in peace should be organized and trained in units of command similar to those in which it would take the field. As a result, a number of small military stations are being abandoned; the bulk of the troops will be concentrated in large cantonments; and their distribution is in three army corps and ten divisional commands, as shown below:—

Army corps command.	Divisional command.
Northern	1st. (Peshāwar.) 2nd. (Rāwalpindi.) 3rd. (Lahore.)
Western	4th. (Quetta.) 5th. (Mhow.) 6th. (Poona.)
Eastern	7th. (Meerut.) 8th. (Lucknow.)
Directly under the Commander-in-Chief	9th. (Secunderābād.) Burma.

Each divisional command (excluding Burma) will, in the event of wholesale mobilization, supply a full division to take the field. Below the divisional organization comes that of brigades, details of which are given on pp. 366–7. It will thus be seen

[1] In 1904 it was decided gradually to increase the native army reserve to 50,000.

that the old Madras command has been abolished, being replaced by the independent Secunderābād division.

Administration of the army. The former Military Department.

Subject to the control of the Crown exercised by the Secretary of State for India, the supreme authority over the army in India is vested in the Governor-General-in-Council. One of the members of Council, commonly called the 'Military Member,' formerly dealt directly with the administrative and financial business of the army, and was the medium for the submission to the Government of India of the proposals of the Commander-in-Chief, who was, and still is, responsible for discipline and executive control. The post of Military Member dates from 1861, and the holder of it was always an officer of the British or Indian army. He presided over what was known as the Military Department: namely, the Military Secretariat of the Government of India, which had under it various executive departments. The Commander-in-Chief is practically always appointed to be an Extraordinary Member of Council, ranking there next after the Viceroy; and being thus 'in the Cabinet' and superior in rank to the Military Member, he occupies a more important position than that formerly held by the Commander-in-Chief at home.

Army and Military Supply Departments.

Since March, 1906, the system of administration of the army has been recast. The supreme authority still vests in the Governor-General-in-Council, subject to the control referred to above; but the business connected with military affairs is now conducted through two Departments—the Army Department and the Department of Military Supply—which have taken the place of the former Military Department. The Army Department, in charge of the Commander-in-Chief, deals with all affairs concerning the army except those specially allotted to the Department of Military Supply, and also disposes of business connected with cantonments and the volunteers. The Department of Military Supply, which is in charge of an Ordinary Member of Council, deals with matters connected with important army contracts, and the supply and registration of transport animals; and also controls the working of the departments of Ordnance, Remounts, Military Works, Army Clothing, and the Royal Indian Marine, as well as the military work of the Indian Medical Service. The Military Accounts department, formerly under the Military Department, has now become a branch of the Finance Department. A Secretary has been appointed to each of the Army and Military Supply Departments, with the usual powers of a Secretary to the Government of India.

The administrative departments under the Military Supply Department thus deal with supply and transport (in part); clothing; ordnance; medical stores; and horse-breeding and remount work. The Military Works Services are also under the Military Supply Department, so far as the financial and technical side of their business is concerned.

Administrative departments under the Military Supply Department.

Up to 1905 the Supply and Transport Corps, until recently known as the Commissariat Transport department, was entirely under the Military Department. The Military Supply Department is now responsible for the supply and storage in bulk of all provisions and stores, and for the registration and provision of transport animals and attendants. The executive control of the corps, the administration of transport units when formed, and questions relating to the distribution of stores to troops have, however, been transferred to the Commander-in-Chief. The officers of the corps are recruited from both the Indian and British armies. Between 1899 and 1904, ninety British officers were added to the corps. In its supply branch it deals with the food of the British troops and of the horses of British mounted corps, and with bedding, barrack, and hospital supplies; in certain localities, too, this corps supplies native troops; and it undertakes the whole of the supply of both British and native troops when on active service[1]. The recent reorganization of the transport has already been mentioned. This now consists of 21 mule corps, 18 cadres of mule corps, 9 *silladār* camel cadres, and 2 pony cart train cadres. A mule corps is commanded by a British officer, and is divided into two subdivisions, each in charge of a warrant officer. Those for use with cavalry brigades are divided into six draught and four pack troops, each under a *daffadār*, and have a total strength of 552 of all ranks, with 936 mules. Those for use with other arms are divided into nine pack troops, each under a *daffadār*, and have a total strength of 388 of all ranks, with 840 mules. Cadres of mule corps are commanded by a British officer, and maintain practically the full number of supervising and artificer establishments. They have, however, a much smaller number of mules. A *silladār* camel corps is commanded by a British officer, and is divided into four subdivisions, each in charge of a native officer. The total strength of the corps is 405 of all ranks, with 357 camels (augmented on mobilization to 1,068). Four camel corps have recently been raised in connexion with the grant of lands for colonization under the Chenāb Canal in the Punjab, camel-owners who receive such lands

The Supply and Transport Corps.

[1] In times of peace native troops usually provide their own food.

being required to keep a specified number of camels available for military service. Each transport corps and cadre has a fixed head-quarters station, situated where possible in the area whence additional animals would be drawn, and here reserves of gear and equipment are maintained. Reserves of drivers and artificers have been formed, and a large staff of officers is employed in the enumeration and registration of the animals available in case of war. Though the organization of the transport is of comparatively recent date, considerable success has been achieved, and some of the *silladār* camel corps were recently sent to Somāliland. The Army Clothing department, now under a separate Director, has factories and stores at Calcutta and Madras, whence clothing is supplied to the British army and the native infantry. Boots are manufactured at Messrs. Cooper, Allen & Co.'s factory at Cawnpore, which also supplies, direct, a large quantity of equipment to the native army.

The Army Clothing department.

The Ordnance department.

The Ordnance department issues all munitions of war, and many kinds of military stores, for the army and volunteers. It also supplies arms and ammunition to the Imperial Service troops, the frontier militia, and the police. Large reserves of ammunition and military stores, siege trains, and engineer and ordnance field parks are maintained in the arsenals, of which there are nine, with four dépôts. The department is controlled by a Director-General of Ordnance, and is divided into northern and southern circles of supply with an Inspector-General at the head of each. The manufacturing establishments, which are in charge of an Inspector-General of Factories, are as follows: a gun and shell factory at Cossipore, near Calcutta; small-arm ammunition factories at Dum Dum in the same neighbourhood, and at Kirkee in the Bombay Presidency; a cordite factory at Wellington in the Nīlgiri Hills; a harness and saddlery factory at Cawnpore, and a similar but smaller institution at Madras; and a central gun-carriage factory at Jubbulpore (Central Provinces). A rifle factory and rolling mills at Ishapore (near Calcutta) are now at work; and when the manufacture of field guns at Cossipore is carried into effect, India will be practically independent of England for all war material except the heaviest guns.

The Military Accounts department.

The Military Accounts department is composed of officers drawn from the army, with a subordinate account and a clerical service, and has at its head an Accountant-General. It is charged with the duty of auditing army accounts and the compilation of the expenditure; and at present its principal

officers are four Controllers of Military Accounts, stationed at Calcutta, Poona, Madras, and Rāwalpindi, each of whom is assisted by a staff of paying, auditing, and accountant officers. As stated above, the Military Accounts department is now under the control of the Finance Department.

The Medical Store department, which is administered by the Director-General, Indian Medical Service, maintains medical store dépôts at Lahore, Calcutta, Madras, Bombay, and Rangoon, containing all kinds of medical stores and hospital equipments. At these dépôts, except that at Rangoon, which is a supply dépôt only, drugs of various kinds and medicines are manufactured. The Director-General, Indian Medical Service is under the Home Department as regards civil duties; but he is also the adviser of the Military Supply Department on all questions relating to the Indian Medical Service and the Indian subordinate medical department. It may be mentioned here that the Indian Medical Service is primarily a military service; but while each unit in the native army has a medical officer from this service attached to it, and certain commands and military districts have drawn their administrative medical officers from the same source, a large number of the members of the service are employed in civil duties, a considerable proportion being held available for military duty when active service requires their presence. The Medical Store department. The Indian Medical Service.

The Remount department, under a Director-General, deals with the breeding and supply of horses for the army. There are five remount dépôts, at Sahāranpur and Hāpur (United Provinces), Mona (Punjab), Ahmadnagar (Bombay), and Hosūr (Madras). The control of horse, mule, and donkey-breeding in certain selected Districts of the United Provinces, the Punjab, Baluchistān and Sind, and the Bombay Deccan has been transferred from the Civil Veterinary to the Army Remount department; outside these areas the former department continues to control breeding. The system is to purchase young stock at an early age, and rear them on Government runs. Australian horses are also imported, for the British mounted services chiefly, while Arabs are likewise obtained for cavalry in limited numbers. Country-bred horses, on which the native cavalry are mainly mounted, have been improved in the last thirty years, and are superior in hardiness and endurance to the Australian. The Remount department.

Officers of the Royal Engineers in India are primarily employed on military works, with the native sappers and miners, in the submarine mining corps, and on the army staff. The Military Works Services.

A considerable number are also employed in the Public Works and other civil departments, and would, in the event of mobilization, be drawn upon for the requirements of the army. The Director-General of Military Works, who deals with fortifications, defences, and military works generally, is in that capacity under the Military Supply Department, but he is also head of the Royal Engineers in India and the adviser of the Commander-in-Chief on technical questions.

Army Head-Quarters.

The Head-Quarters Staff of the army, which is directly under the Commander-in-Chief as such, comprises the following chief staff officers: the Chief of the Staff, the Quartermaster-General, the Adjutant-General, the Principal Medical Officer, His Majesty's Forces, and the Military Secretary. Each of these officers has various deputies and assistants.

The Chief of the Staff deals with questions of military policy; the organization and distribution of the army, and its preparation for war; intelligence; mobilization; plans of operations; the higher training and education of the army; and manœuvres. The Quartermaster-General is responsible for the organization, training, and administration of the Transport, Veterinary, and Supply services; the accommodation and movements of troops, and questions relating to cantonments. The Adjutant-General is concerned with recruiting, and the discipline, training, education, and equipment of units.

The Principal Medical Officer, His Majesty's Forces in India, is the responsible adviser of the Commander-in-Chief on all points connected with the health, the sanitary arrangements, and the medical institutions of troops. He is the head of that portion of the Military Medical Service in India which comprises the officers of the Army Medical Staff and Royal Army Medical Corps, who come out to India for a term of duty (usually five years), and those officers of the Indian Medical Service, and members of the Indian subordinate medical department (military assistant-surgeons and hospital assistants), who are on military duty. He also controls the Army Hospital and Army Bearer Corps, and Queen Alexandra's military nursing service for India, consisting of eighty-four nursing sisters. Each command has a special sanitary officer, whose duties are to investigate the causes of disease, to give practical advice in sanitary matters, and to carry out scientific investigations; and there is a similar officer at Army Head-Quarters.

The Military Secretary deals with appointments, promotions, exchanges, and retirements.

Since 1895 the powers of the Commander-in-Chief as such have been much extended, while at the same time he has been freed from a good deal of petty business. For filling up the higher commands and staff appointments, the approval of the Secretary of State for India is required, besides that of the Governor-General-in-Council; and in the case of British service officers the concurrence of the Army Council has to be obtained for all appointments of any consequence. Minor staff and regimental posts, again, are dealt with by the Lieutenant-Generals of the commands, and the Military Supply Member has the right of appointment in the departments subordinate to him; but subject to these exceptions, all important army patronage vests in the Commander-in-Chief, and much of the business that formerly used to go before the Government of India is now dealt with at Army Head-Quarters. The Commander-in-Chief's direct financial powers are limited to sanctioning expenditure not provided by regulations up to a limit of Rs. 50,000 a year. Powers of the Commander-in-Chief.

The Lieutenant-Generals of the main commands are each assisted by an army and departmental staff, the principal officers in which are the following: Deputy Adjutant-General, Colonel on the Staff (Brigadier-General) for Royal Artillery, Chief Engineer, Principal Medical Officer, Inspector-General of Ordnance (two for the former four commands), and Inspector of Supply and Transport. The Controller of Military Accounts in each command is also the financial adviser of the Lieutenant-General of the command. Lieutenant-Generals of commands.

The local heads of the Army departments carry on their duties under the general regulations applicable to the department, but in their executive work act under the Lieutenant-General of the command.

Each of the four commands formerly existing was divided into first and second class military districts as follows:— Military districts, &c.

Punjab Command.

Three first-class districts: Lahore, Peshāwar, and Rāwalpindi.
Three second-class districts: Derajāt, Kohāt, and Sirhind.

Bengal Command.

Two first-class districts: Meerut and Oudh.
Six second-class disrticts: Assam, Presidency, Allahābād, Bundelkhand, Rohilkhand, and Nerbudda.

Bombay Command.

Three first-class districts: Mhow, Poona, and Quetta.
Five second-class districts: Aden, Bombay, Deesa, Sind, and Nāgpur.

Madras Command.

One first-class district: Secunderābād.

Four second-class districts: Bangalore, Madras, Southern, and Belgaum.

Adding the Mandalay second-class district in Burma, we get in all 9 ordinary first-class and 19 second-class districts.

New organization by divisions and brigades.

The reorganization scheme referred to on pages 359–60 has, however, materially altered the distribution of military districts and their component stations, and the former have been rearranged so that each may supply a brigade on mobilization. The present arrangement is as shown below; but eventually each division outside Burma will be constituted so as to comprise one cavalry and three infantry brigades for mobilization, besides the necessary divisional troops (artillery, sappers, pioneers, &c.), and a sufficient garrison force for the maintenance of internal order:—

Division.	Brigades.	Former military Districts comprised in new Division[1].
1st. Peshāwar	Naushahra (infantry) Naushahra (cavalry)	Peshāwar.
2nd. Rāwalpindi	Abbottābād Jhelum Siālkot (cavalry)	Rāwalpindi.
3rd. Lahore	Jullundur Sirhind Ambāla (cavalry) Ferozepore	Lahore and Sirhind.
4th. Quetta	Karāchi	Quetta and Sind.
5th. Mhow	Nasīrābād Jubbulpore Jhānsi	Mhow, Deesa, Nāgpur, Nerbudda, and Bundelkhand.
6th. Poona	Bombay Ahmadnagar Belgaum	Poona, Bombay, and Belgaum.
7th. Meerut	Bareilly Garhwāl Meerut (cavalry)	Meerut and Rohilkhand.
8th. Lucknow	Allahābād Fyzābād Presidency (Calcutta) Assam	Oudh, Allahābād, Presidency, and Assam.
9th. Secunderābād	Bangalore (cavalry) " (infantry) Secunderābād (cavalry) " (infantry) Madras Southern	Secunderābād, Bangalore, Madras, and Southern.

[1] These correspondences are approximate only.

Division.	Brigades.	Former military Districts comprised in new Division[1].
Burma	Mandalay Rangoon	Mandalay.
Independent brigades — Northern command.	Kohāt.	Kohāt.
	Derajāt Bannu.	Derajāt.
„ Western command.	Aden	Aden.

The distribution and organization of the army in 1906 is shown in Appendix I.

The officer commanding a division is ordinarily a major-general, while the brigades are commanded according to their importance by major-generals, brigadier-generals, or colonels on the staff. The divisional commanders have been entrusted with wide powers, thus relieving the Lieutenant-Generals of commands of much routine work and setting them free for a more thorough inspection of their troops.

The head-quarters staffs of divisions and brigades are amalgamated, i.e. they all belong to one department, the Adjutant-General's; but certain officers perform routine duties; others those relating to training and preparation for war, e.g. armament, instruction, and organization; and others again those relating to maintenance and movement, e.g. camps and mobilization.

Distribution of commands between British and Indian services, &c.

Commands and army staff appointments are as a rule divided equally between the British and Indian services; but certain classes of appointments are generally reserved to Indian officers, e.g. those in the Military Accounts, Remounts, and Judge Advocate-General's departments. The maximum number of general officers of the Indian army is limited to 3 generals, 5 lieutenant-generals, and 22 major-generals. Promotion is by selection to fill a general officer's appointment, or as a reward for distinguished service.

Training of officers.

Officers in India must either have obtained a staff college certificate or have qualified for promotion to field rank and passed the higher standard examination in Hindustāni, in order to attain to the staff. The establishment of an Indian Staff College at Quetta has been sanctioned[2], and measures have been taken to improve the regimental training of officers. There are special veterinary, signalling, supply, transport, pioneer, explosives, and gymnastic classes, while engineer officers can go through courses of instruction in submarine mining and in

[1] These correspondences are approximate only.

[2] Pending the completion of buildings at Quetta, instruction was begun at Deolāli in 1905.

telegraphy. The general tactical training of the army is carried on by means of annual field training, and by manœuvres on varying scales.

Organization and strength of British regiments, &c.

The organization and interior economy of the units of the British army serving in India are similar to those of the units at home; the arms, equipment, and uniform are the same generally, but khaki drill (red or blue serge in the cold weather) and lighter helmets are worn. Every unit has an establishment of native followers, including a quartermaster's establishment of lascars for the care of tents, *pakhālis* (water-carriers with bullocks), sweepers, &c., and a 'conservancy' establishment of *bhistis* (water-carriers), sweepers, and carts. Mounted units have, in addition, native artificers and 'syces' (grooms). Every unit has camp equipage in its charge, and can usually move at a few hours' notice.

The authorized strengths of the units of the British army serving in India are as follows:—

Unit.	Officers.	Warrant N.-C. officers and men.	Total.	Native N.-C. officers and men, additional.
Cavalry regiment	29	599	628	...
Horse or field battery	5	157	162	7-9
Howitzer field battery	5	180	185	11
Heavy battery (half horsed)	5	91	96	104
,, ,, (bullock draught)	5	89	94	110
Mountain battery	5	129	134	197
Garrison company	5	140	145	...
Infantry battalion	29	1,005	1,034	...

Composition of native army.

The composition of the regular native army is very varied. As already explained, regiments are organized either on the 'class,' or on the 'class squadron' or 'class company,' system. In the former case, as in Gurkha regiments, they are all of one class; in the latter case four companies may (for example) be Sikhs, two Punjābi Musalmāns, and two Pathāns. About one-third of the regiments are on the 'class' system.

The principal races and castes enlisted in the regiments of the various commands are as follows:—

Northern command—Pathāns and Punjābi Muhammadans, Sikhs, Dogrās, and some Gurkhas.

Eastern command—Hindustāni Muhammadans, Brāhmans, Rājputs, Jāts, Gurkhas, Garhwālis.

Secunderābād division—Muhammadans of the Punjab and of Madras (including Moplahs), Tamils, Sikhs, and Hindus of the Punjab.

Western command—Muhammadans of the Deccan, Rājputāna, and the Punjab; Pathāns and Baluchis; Marāthās; and Hindus from Rājputāna and Hindustān.

Burma division—Muhammadans from the Punjab, Sikhs, and Gurkhas.

The recruiting of the native army is now largely undertaken by recruiting staff officers who are permanently allotted to particular areas, but (in the cavalry especially) men often join through the agency of their relatives and friends. Enlistment is for general service, within or without British territories, and beyond sea if necessary. The age of enlistment is from sixteen to twenty-five years; and the standard of height for dismounted services is 5 feet 4 inches, except in the case of Gurkhas, who are accepted at 5 feet. The height for cavalry recruits is at the discretion of the Officer Commanding the regiment. In times of peace the soldier may take his discharge after three years' service.

Organization of regiments, &c.

Cavalry regiments and infantry battalions are organized in four squadrons or double companies, each commanded by a British officer, who is responsible to the Commandant for the training and efficiency and everything connected with his squadron or double company. A junior British officer is also, as a rule, attached to each squadron or double company. An adjutant and a quartermaster are allowed for each unit.

Native officers, termed *risāldārs* and *ressaidārs* in the cavalry and *sūbahdārs* in the infantry, command each half-squadron or company, and all orders to the native ranks are issued through them. The senior of them has the title of *risāldār*-major or *sūbahdār*-major. They are assisted by a junior native officer, called a *jemadār*; and a *jemadār* is also allowed to assist the British adjutant.

The authorized strengths of the units of the native army are as follows:—

Unit.	British officers.	Native officers.	Native N.-C. officers and men.	Total.	British N.-C. officers, additional.
Cavalry regiment	15	17	608	640	...
Mountain battery	5	3	323	331	...
Frontier garrison artillery	3	3	272	278	...
Company sappers and miners	2	3	189	194	2
Military railway company	1	3	193	197	1
Infantry battalion recruited in the Madras Presidency	13	16	584	613	...
Infantry battalion recruited elsewhere than in the Madras Presidency	15	16	896	927	...

Powers of commanding officers, &c.

The powers of commanding officers of native regiments are considerable, but it is held by many authorities that they could be increased with advantage. They can make promotions in the non-commissioned ranks, but appointment to or promotion in the commissioned grade can only be recommended to superior authority. They have, however, no power to reduce or discharge non-commissioned officers, or to discharge men (save in the case of cavalry men who fail to become good riders), such as existed for some years after the Mutiny. These powers are exercised by the officer commanding the brigade, while the Lieutenant-General of the command has the power of dismissing or discharging a native officer. The commanding officer of any corps or detachment has, however, a large power in the 'summary court martial,' which may be held by him alone, 'attended' only by British or native officers, and may try most military offences. Such a court martial may pass any sentence allowed by the articles of war, except death, transportation, or imprisonment for more than a year, and may carry it out at once. Corporal punishment not exceeding fifty lashes may be given for certain offences, but is rarely awarded, and the amount of military crime is, on the whole, very small in the native army. The native officers have power to inflict minor punishments.

Pay and promotion of the officers of the Indian army, and other matters.

The pay of the officers of the Indian army is on two lines, pay of rank plus pay of appointment. The pay of rank rises from Rs. 225 monthly as lieutenant to Rs. 827 as lieutenant-colonel. The pay of appointment in native regiments rises from Rs. 150 to Rs. 700 in cavalry, and from Rs. 100 to Rs. 600 in infantry regiments. Thus the total pay of a lieutenant of cavalry and squadron officer would be Rs. 375, and of a lieutenant and double-company officer of infantry Rs. 325 monthly. The staff pay attached to non-regimental appointments rises to Rs. 1,000 monthly, but the pay of the higher staff appointments and commands is consolidated.

The promotion of officers of the Indian army continues to be regulated by a time scale which gives nine years as lieutenant, nine years as captain, and eight years as major, promotion to the rank of lieutenant-colonel being thus attainable after twenty-six years' service. Promotion is in all cases subject to the required professional examinations being passed satisfactorily. Accelerated promotion to the rank of lieutenant-colonel is, however, allowed in the case of a major selected for the command of a regiment or battalion, or for certain prescribed staff or administrative appointments. A lieutenant-

colonel who has held for three years such a command or appointment may be promoted to the brevet or substantive rank of colonel. Otherwise, six years' service in the rank of lieutenant-colonel is required before promotion. The rank of colonel does not carry any increase of emoluments in India. The tenure of regimental commands is now ordinarily for five years, which may be extended to seven. A regimental officer appointed to the staff or to a military department for any but a brief period is seconded in his regiment. If permanently appointed to civil or political employ, he is struck off the roll of his regiment and, after ten years, off the effective list of the army, rising on a supernumerary list to the rank of lieutenant-colonel, but no higher.

Hindustāni may be regarded as the common language of the Indian army; but officers have to pass not only the higher standard examination in this, but also an examination in the language mostly used by the men of their corps: e.g. Hindī, Marāthī, Parbattia, Punjābi, Pashtū, Persian, or Tamil.

One of the great difficulties in Indian army organization is the supply of officers. As has been shown, the establishment has been increased lately, but in the event of a serious war a further large addition would be required. There is a small body of reserve officers in India, drawn from civil life and from the volunteers, but this would prove quite insufficient.

Pay and pension of native soldiers.

In early days the pay of the sepoy was Rs. 5 per mensem, but the *batta* or allowances varied in different parts of the country. At the end of the eighteenth century, the general monthly pay was Rs. 7, which was increased to Rs. 9 in 1895. A non-*silladār* cavalry *sowār* receives Rs. 2, and a native gunner R. 1, more than the infantry sepoy. A *silladār sowār* receives Rs. 31 a month, out of which he has to provide and maintain everything except his rifle, including transport and camp equipage. Pay is supplemented by compensation for dearness of provisions. This has varied in detail in the different Presidencies; but the general principle is that when the chief articles of what is supposed to be a sufficient ration rise in price above a total of Rs. 3½ per mensem for combatants or Rs. 2½ for followers, the Government steps in and pays the excess. The plan has some defects and many alterations in detail have been tried, but in its general lines it is well understood and appreciated by the men. *Silladār* cavalry soldiers are also protected from loss, if the price of forage for their horses and transport animals rules high.

Extra pay, called 'good-service pay,' is given to non-commissioned officers as a reward for efficiency, zeal, and good conduct; and soldiers whose behaviour has been exemplary receive similar encouragement in the shape of 'good-conduct pay.' *Batta* is also given when marching or in the field, and when transport is not provided by the state. Pensions (Rs. 4 monthly for a sepoy) are given after twenty-one years' service, and at superior rates after thirty-two years' meritorious service. There are also scales of gratuities for less periods, and pensions for wounds and injuries. Family pensions, granted to the son, widow, daughter, father, or mother of a soldier killed, or dying, on foreign service, form a special feature in the pay system of the native army.

Two 'Orders' are specially reserved for the native army. The 'Order of British India,' conferred on native commissioned officers for long, faithful, and honourable service, has two classes (*Sardār Bahādur* and *Bahādur*), with allowances attached. The 'Indian Order of Merit' is given for personal bravery, irrespective of rank or service. It is in three classes, with monthly pay attached.

Uniform and armament of native troops.

The uniform of the native army is serge for the cold weather and parade, with khaki drill for ordinary work or active service. The colour of the uniform varies. The artillery wear blue and the sappers red, assimilated to the Royal Artillery and Royal Engineer colours, respectively. The infantry wear serge tunics, blouses, or jackets—red, dark green, blue, or drab—with knickerbockers and putties or gaiters, and ankle boots. The native infantry are armed with the Lee-Enfield rifle, and the cavalry with this rifle and with swords and lances.

Auxiliary forces. Volunteers.

The auxiliary forces are the volunteers, the Imperial Service troops, militia, and levies, and the military police.

The volunteers of India may be classed under the head of British forces. They existed in the early days of the British occupation as militia at the chief settlements. They were allowed to die out in the first years of the nineteenth century; but a volunteer corps was raised for the Straits Settlements, then under the Government of India, in 1854, and several corps were enrolled during the Mutiny, some of which did excellent service. Since that time the volunteer force has steadily developed, and now consists of sixty-one corps with a total strength, including reservists, of about 34,000, of whom 32,000 are efficient. Calcutta and Rangoon possess port-defence corps, which comprise naval, artillery, and electrical engineer units, and in the case of Calcutta a submarine mining

unit. There are seven cavalry or light horse corps, five corps of garrison artillery, and four corps of mounted rifles; and twelve ordinary rifle corps have detachments of mounted rifles. The Bombay and the Karāchi garrison artillery corps have electrical engineer companies, and the East Indian Railway rifle corps includes an ordinary engineer company. Thirteen rifle corps are recruited from railway employés, forming valuable bodies for the defence of their respective railways. The ordinary rifle corps number thirty, including cadet battalions. There are also reserve companies, but the formation of a volunteer reserve has made very slight progress since this measure was introduced in 1889, the numbers at present being under 1,700. The organization of volunteer corps follows that of the British army, from which the adjutants and sergeant-instructors are detailed. Rifle corps are armed with magazine rifles; cavalry and artillery units with carbines. The rôle of the volunteers being the defence of ports, railways, cantonments, and civil stations, their equipment is limited accordingly.

All volunteer corps are under the general officers of the military areas to which they belong, and they are occasionally brigaded with regular troops. Junior officers are elected by the corps, but promotion or appointment to the rank of captain is made by the Local Government, which also appoints field officers. Commanding officers are appointed by the Governor-General-in-Council on the recommendation of the Local Government. The inspection of volunteers throughout India is vested in a general officer (the Inspector-General of Volunteers), who is directly under the Adjutant-General.

Imperial Service troops.

The origin of the Imperial Service troops has already been given. The authorized strength is a little over 18,000: namely, cavalry 7,100, artillery 421, sappers 570, infantry 9,384, camel corps 665, besides six transport corps and two signalling units; and they are furnished by most of the important Native States. The cavalry consists of 17 corps varying in size. Gwalior furnishes three regiments, Hyderābād and Jodhpur two each, and Mysore, Patiāla, and Alwar one each. Kashmīr has two mountain batteries. The sappers are furnished by Sirmūr Farīdkot, and Māler Kotla; the infantry by Kashmīr, the Punjab States, Alwar, Bharatpur, and Gwalior. Bīkaner supplies a camel corps 500 strong, and the transport corps are furnished by Jaipur, Gwalior, Bharatpur, Mysore, Indore, and Bahāwalpur, while the last-named state has an escort of 165 riflemen.

The cost of the Imperial Service troops is borne by the Native States, the charges for the British inspecting staff (an Inspector-General assisted by a Deputy-Assistant-Adjutant-General for Musketry and nineteen other officers) falling on the revenues of British India. The troops, though available for Imperial service when placed at the disposal of the British Government by their rulers, belong absolutely to the States, and are recruited from their subjects. Their armament is the same as that of our native army, and in training, discipline, and efficiency they have reached a high standard of excellence. They have recently won commendation in China and Somāliland, and have also done good service on the north-west frontier and in garrison. The Kashmīr Imperial Service troops now garrison Gilgit.

Imperial Cadet Corps.

The Imperial Cadet Corps, organized by Lord Curzon, consists of about twenty young men of noble birth who have been educated at the Chiefs' Colleges. The object is to give a military training to these youths, so that they may take their places as officers in the Imperial army and furnish trained officers to the Imperial Service troops. The cadets have British officers as commandant and adjutant, and also a native adjutant. The course of instruction lasts between two and three years, and the cadets are taught military exercises and military science. The head-quarters of the corps are at Meerut in the cold weather and at Dehra Dūn in the hot season.

Frontier militia, &c.

The reorganization of the existing militia corps on the north-west frontier, and the creation of new corps, formed a necessary part of the plan above referred to (p. 356) of withdrawing the regular troops from advanced frontier posts, and employing the local tribes in military service to guard these posts, regular troops being concentrated at main positions in support.

These corps are mainly employed under the Agent to the Governor-General in the Frontier Province, and consist of two battalions of Khyber Rifles, under one commandant, two battalions of Kurram militia, and the North and South Wazīristān militia, supplemented by certain tribal levies: namely, the Chitrāli Scouts, and the Dīr, Swāt, Chitrāl, and Bhittāni levies. The Zhob Levy Corps (horse and foot) is under the orders of the Agent to the Governor-General in Baluchistān. All these bodies of militia and levies are for service on the frontier and in tribal country. The militia number in all about 6,000 men, and are armed with Martini-Henry rifles and equipped in much the same way as the regular army, but with

only two or three officers per battalion. They are entirely under the civil power, except when associated in war service with the regular troops, when they come under the officer commanding these. The levies number about 5,700 men, and are ordinarily commanded by native officers. They are generally armed with Snider rifles and carbines, except in the case of the local Baluchistān levies, who find their own arms.

Military police.

The military police consist of the Sāmāna Rifles and border military police of the North-West Frontier Province; a border military police corps in Dera Ghāzi Khān District, under the Punjab Government; six battalions in Assam, and fourteen in Burma; but some of the Assam corps are not of the strength of an ordinary battalion. The military police are distributed as follows (in round numbers):—

Frontier Province and Punjab	3,000
Assam	3,000
Burma	15,500
Total	21,500

The military police in the Frontier Province are officered by military civilians or police officers; the Assam battalions are commanded by officers of the army. These corps occupy the frontier outposts and stockades. The Burma military police garrison frontier and other posts: ten battalions are stationed in Upper Burma, two in the Shan States, and two in Lower Burma. Well organized, commanded by officers of the Indian army, and constituted of the best material, they are, in fact, soldiers as well as police. The armament of the military police is generally the Martini-Henri rifle.

Armies of Native States.

Besides the Imperial Service troops, the Native States maintain, according to their position, large or small bodies of soldiers as local military forces. These number collectively about 16,000 cavalry, 7,000 artillery, and 70,000 infantry, or 93,000 in all, with many guns; but, with some exceptions, they are of little military value, and are armed with smooth-bore muskets, while the guns are smooth-bore and few are movable. Gwalior, Hyderābād, and Kashmīr have fairly good troops, while the forces of the Sikh and Rājputāna States contain capital material.

A few words may be added about the Nepāl and Afghān armies. The Nepāl army consists of about 45,000 men, regular and irregular, including 2,500 artillery, with about 900

guns; the troops are armed with Snider and Martini-Henry rifles and smooth-bores manufactured in Nepāl. The military system is on a voluntary basis, with a short service of three years and liability to recall. There are practically no cavalry. A much larger army could be raised in Nepāl if circumstances required it.

The standing army of Afghānistān consists of between 65,000 and 70,000 regular troops: that is, troops which are organized in regiments on a plan somewhat similar to that obtaining in the Indian army, and formed into brigades and divisions. The irregulars, about 20,000 in number, comprise the mounted levies of the chiefs and the *khāsādārs* or foot levies who perform police work. The armament consists of Lee-Metford, Martini-Henry, Snider, and Enfield rifles, machine-guns, and rifled guns, besides others of smooth-bore pattern. Munitions of war are manufactured and stored at Kābul. The strength of Afghānistān lies in the warlike instincts of the inhabitants generally. Every adult Afghān is a fighting man, and, if furnished with a rifle and allowed to fight in his own way, would be a formidable enemy.

Mobilization arrangements and special defence expenditure.

Having thus dealt briefly with the various constituents of the army in India, something must be said regarding mobilization and the defences. The plan of mobilization in India has hitherto been based on the preparation of a 'Field army,' the ordinary 'commands' being merely territorial. The organization of the field army was made up of units, told off in divisions and brigades, from particular stations. A division consists of three infantry brigades of four battalions each; divisional troops of cavalry, artillery, and sappers; a cavalry brigade; ammunition columns; ordnance and engineer field parks; field hospitals, &c., with a total strength of about 15,000 troops. There are also large reserves of supplies and stores in charge of the Supply and Transport Corps, and at arsenals. As above indicated (p. 366), the new system now in process of development contemplates the rearrangement of the army (outside Burma) in nine divisional commands, so that each may supply a full division for field service in addition to providing the number of troops which would still be necessary for internal security.

Units go on service at a lower strength than the peace establishment. Thus, an ordinary native infantry battalion is 912 strong; but as it has to leave the sick and unfit behind at its dépôt, its field-service strength is fixed at 752, the reservists of the native army being used to form, with the dépôts of

mobilized battalions, 'reserve battalions' at the regimental centres. These battalions supply drafts to the battalions on service, and enlist and train recruits. The transport organization has already been mentioned. The more this is expanded, and the greater the number of the excellent transport trains furnished by Native States, the more perfect and complete will mobilization be.

Great strides have been made between 1885 and 1903 in the frontier and coast defences of India. A total of £11,000,000 has been spent on strategic railways, roads, and defences, the cost of the last being somewhat over £3,000,000. On the frontier, the main passes have been secured and strategical points in rear strongly fortified, while the ports have been furnished with adequate defences.

Information as to military expenditure at different periods from 1876 will be found in chap. vi (Finance), and it will be sufficient to quote the following figures here. They give the net total of ordinary charges, including pensions, &c., and outlay on military works:— Army expenditure.

	1881-2.	1891-2.	1901-2.	1902-3.	1904-5.
Total net expenditure, in crores of rupees	17·9	22·6	23·6	25·9	30·2

The expenditure in the last-mentioned year represented 46 per cent. of the net revenue of the Government of India as shown in Table II appended to chapter vi (*ante*, p. 201).

The main causes of increase in army expenditure are larger numbers, improvements of all kinds, the rise in prices and wages, the increased cost of equipments and war material, and the enhancement in the pay of British and native troops.

In 1895 a Royal Commission was constituted to inquire into Indian expenditure, and the apportionment of charges between England and India. They reported in 1900, and recommended, among other things, that half the military charge for Aden, and half the cost of the transport of troops to and from India, should be borne by the Imperial Government[1]. The question of payment for Indian troops employed out of India had been under discussion for many years; and the Commission held that ordinarily all charges in respect to troops lent must be borne by the country which had a special interest in the expedition, but that if the country supplying the troops Incidence of expenditure on Indian troops employed for Imperial purposes.

[1] This principle has been applied in practice by the Home Government contributing annually £100,000 for Aden, and £130,000 on account of the transport service.

had also a direct and substantial interest, it should bear a portion of the burden. The question of geographical distribution was laid down, and the various possible theatres of operations were examined. It was held that India had no direct and substantial interest in the employment of forces in Europe, in Africa west of the Cape of Good Hope, or in Eastern Asia; but that she had a direct and substantial interest in keeping open the Suez Canal, and in the maintenance of order in Egypt as affecting the Canal. These principles were accepted, and now regulate the incidence of charges in respect of troops supplied by the Indian Government for Imperial needs: thus the whole cost of the Indian troops sent to South Africa in 1899, and to China in 1900, was borne by the Home Government. The capitation and other charges for which India is liable on account of the training, transport, and pensions of the British troops she employs have been already referred to on p. 343.

The Indian army has played a considerable part in Imperial policy, from early days down to the most recent dates. Its soldiers have crossed the seas to fight for Britain; they have cheerfully endured hardship in remote lands where everything has been strange and unhallowed to them; and in the late campaigns in China and South Africa India has shown how much she contributes to the military strength of the Empire.

Conclusion.

In this sketch has been traced the rise, from an initial handful of half-trained retainers, of a great Eastern military power. It has been shown that many causes combined to impair its strength, and led to disaster; and, following this, the history of a new army has been told. The lessons we may learn are clear enough. For the external defence of India, and to be able to render assistance to the empire at large, the Indian army must be prepared at all points, ready to act, and organized for expansion. For the internal security of India, the greatest weight must be given to the composition of the native army, to the avoidance of homogeneity, the employment of the European population as an auxiliary force, and perfect readiness to maintain order. During the first twenty years after the Mutiny the labours of administrators were directed to the reconstruction of a large portion of the native army and to the reorganization of the whole, and economy was more regarded than perfect efficiency. In the period that has followed great progress has been made in administration, organization, mobilization, and defence. India has entered on a new phase of connexion with Imperial politics; and successive administra-

tions from Lord Lytton to Lord Curzon have carried out a continuous policy of preparation and defence, enunciated by the distinguished men who have filled the posts of Commander-in-Chief and Military Member of Council, among whom Sir Donald Stewart, Lord Roberts, Sir George Chesney, and Lord Kitchener deserve special mention [1].

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[1] To these names should be added that of Sir Edwin Collen, late Military Member, who has contributed the material for the present chapter, and who bore a long-sustained and distinguished part in the organization of the Indian army on its present basis.

APPENDIX I

Army Statistics, January 1, 1906

A. Organization and Distribution of the British and Native Army and Auxiliary Forces

Commands, &c.	British Army.								Native Army.								Auxiliary Forces.			
	Cavalry regiments.	Horse artillery batteries.	Field and howitzer batteries.	Heavy batteries.	Mountain batteries.	Garrison companies.	Mobile guns.	Infantry battalions.	Cavalry regiments.	Mountain batteries.	Frontier garrison artillery.	Mobile guns.	Sapper and miner companies.	Submarine mining companies and sections.	Military railway companies.	Infantry battalions.	Volunteer corps.	Imperial Service corps.	Militia battalions.	Military police battalions.
Northern command .	3	4	9	3	5	3	120	14	15	9	1	54	3	...	1	45				
Eastern " .	3	3	10	1	...	7	82	15	6	...	...	...	6	1	...	22				
Western " .	1	2	18	2	3	9	146	14	17	...	...	...	7	3	1	42				
Secunderābād division	2	2	8	...	...	1	60	5	2	...	...	...	9	...	...	24	61	41	6	21
Burma " .	...	...	...	...	...	2	...	4	...	2	...	12	1	1	...	7				
Total	9	11	45	6	8	22	408	52	40	11	1	66	26	5	2	140	61	41	6	21

B. Strength of British and Native Regular Troops *

Commands, &c.	British.					Native.						Grand Total, British and Native troops.
	Cavalry.	Artillery.	Royal Engineers.	Infantry.	Total.	Cavalry.	Artillery, including those with Brit. units.	Sappers and miners and I.S. Mule corps.	Railway companies.	Infantry.	Total.	
Northern command .	1,884	3,708	10	14,494	20,096	9,420	4,496	582	197	41,669	56,364	76,460
Eastern " .	1,884	3,425	52	15,516	20,877	3,950	483	1,088	...	20,363	25,884	46,761
Western " .	628	5,516	82	14,482	20,708	10,562	1,155	1,421	197	34,266	47,601	68,309
Secunderābād division	1,256	1,877	34	5,170	8,337	1,307	311	1,071	...	18,761	21,450	29,787
Burma " .	...	298	32	4,136	4,466	...	654	243	...	6,147	7,044	11,510
TOTAL	5,652	14,824	210	53,798	74,484	25,239	7,099	4,405	394	121,206	158,343	232,827

The reserves and auxiliary forces numbered approximately 111,500, made up as shown below :—

	British (volunteers)	34,000
Native.	Reserves of regular army	27,500
	Imperial Service troops	18,000
	Military police battalions	17,500
	Frontier militia and levies	14,500 †
		111,500

* These figures represent the full strength of the army, and include the units serving out of India.
† Including some local levies under purely tribal organization.

APPENDIX II

The Royal Indian Marine

As the Royal Indian Marine is, administratively, under the Military Supply Department of the Government of India, it is desirable to add a brief account of this service.

The East India Company necessarily began its existence as a maritime body, and its ships soon became vessels of war as well as of trade. The armed naval force of the Company was created by the charters of Charles II and James II, but it was not till 1829 that the Bombay fleet was united with that of Calcutta and became the Indian Navy. The Indian naval force performed its duties with great efficiency and distinction. It fought with the Portuguese, the Dutch, and the French, and with pirates and slave-traders in every Eastern sea. It co-operated with the Royal Navy on various occasions, and an Indian naval squadron was for some time associated with that navy in the China seas.

The Indian Navy was abolished in 1862, for reasons of economy, and because it was thought that the naval defence of India should be entrusted to the Royal Navy. The 'Bombay Marine' was then created, and was eventually amalgamated with the 'Bengal Marine' in 1877 under the title of 'Her Majesty's Indian Marine,' changed in 1892 to 'Royal Indian Marine.' Its duties were to be the local transport of troops and stores, the guarding of convict settlements, the suppression of piracy, marine surveys, and the protection of the ports. In 1891 the turret ships, torpedo vessels, and gunboats belonging to the Indian Marine were transferred to the Admiralty. The Indian Marine has developed in the course of years into a highly efficient force, which has done admirable service in numerous expeditions over-sea and in scientific surveys. Its officers are appointed by the Secretary of State, from qualified officers of the mercantile marine; they hold rank as in the Royal Navy up to that of commander, and wear a somewhat similar uniform. The establishment of officers in 1904 was 26 commanders, 64 lieutenants and sub-lieutenants, 10 chief engineers, and 61 engineers and assistant-engineers, in addition to the Marine Survey establishment.

The fleet consisted in that year of eleven sea-going vessels (troopships, surveying vessels, and a dispatch boat), four inland river steamers, and many smaller steamers and launches; and armaments are available for the equipment of the vessels for war and service. There are excellent dockyards at Bombay and Calcutta. The service has at its head a Director, usually a naval officer, with head-quarters at Bombay, and a Deputy-Director at Calcutta. Officers of the Indian Marine are also employed as Port Officers at the various Indian ports. The Marine Survey department referred to in chapter xv is under the Director of the Royal Indian Marine, and is ordinarily manned by Indian Marine officers. The trooping between India and England is carried out mainly by hired transports, Indian Marine vessels being occasionally used. India pays a subsidy of £100,000 annually for the up-keep of certain ships of the East India squadron, which are not to be employed beyond particular limits except with the consent of the Government of India.

CHAPTER XII

POLICE AND JAILS

I. Police

The indigenous police system.

THE most interesting feature of the modern Indian Police system is that, along with a regular police formed on the model of the Royal Irish Constabulary, it comprises as an essential part of its organization the ancient institution of the village watch. It is now generally admitted that the village community in its most complete form is of non-Aryan origin; and it is in the parts of India which have least felt Aryan influence, that is, in the country lying to the south of the Vindhya mountains, that this form of self-government has retained the greatest vitality. In many tracts within this area the old complement of village officials still exists, and, though all are not now embodied in the British system of administration, every village has retained a headman and a watchman. These officers have been from ancient times, and are still, though to a somewhat less degree, the backbone of the police machinery of India. The headman occupied the position of a police magistrate and the watchman worked under his orders. The latter's functions are thus graphically described by Mountstuart Elphinstone in his report (1819) on the territories conquered from the Peshwā:—'His [the watchman's] duties are to keep watch at night, to find out all arrivals and departures, observe all strangers, and report all suspicious persons to the *pātel* [headman]. He is likewise bound to know the character of every man in the village; and in the event of a theft committed within the village bounds, it is his business to detect the thief. He is enabled to do this by his early habits of inquisitiveness and observation, as well as by the nature of his allowance, which being partly a small share of the grain and similar property belonging to each house, he is kept always on the watch to ascertain his fees, and always in motion to collect them. When a theft or robbery happens, the watchman commences his inquiries and researches. It is very common for

him to track a thief by his footsteps; and if he does this to another village, so as to satisfy the watchman there, or if he otherwise traces the property to an adjoining village, his responsibility ends, and it is the duty of the watchman of the new village to take up the pursuit. The last village to which the thief has been clearly traced becomes answerable for the property stolen, which would otherwise fall on the village where the robbery was committed. The watchman is obliged to make up this amount as far as his means go, and the remainder is levied on the whole village[1].' Sir Thomas Munro, who was an ardent supporter of the indigenous police, thus described that institution as it existed in the Madras Presidency: 'There is already an ancient system of police in India which answers every useful purpose. In every village there are hereditary watchmen whose business it is to guard the property of the inhabitants and travellers from depredation, and to exert themselves in recovering it when lost or stolen; and there is, perhaps, no race of men in the world equally dexterous in discovering the thieves. They are maintained by the produce of an *inām* [free grant] land, by a trifling tax on each house, and by a small allowance from travellers when they watch their property at night. No war or calamity can make them abandon their heritage. If driven from it, they always return again; and often live in the village when every other person has forsaken it. This long and constant residence, together with their habits of life, make them perfectly acquainted with the character and the means of livelihood of every person in it. When, therefore, a robber is to be apprehended the new police officers apply to them, and seldom give themselves any further trouble than merely to carry the criminal, when the village watchmen have secured him, to the judge.' In the Tamil country the village police were supervised by an official styled the *men kāvalgār*; and it is probable that this was originally the practice everywhere, the office being eventually appropriated by the petty local chieftain or superior landlord.

In Northern India the village system was less complete. There was no headman, and though every village had its watchman, he was the servant of the landowners rather than of the whole community, and the landowners were held responsible for losses occasioned by crime committed on their land.

Its decay with the break-up of the

The Mughals made no change in the system of village police, but the duty of supervising them was entrusted to the revenue officers, who were also magistrates. In the South this involved

[1] G. W. Forrest's *Selections from the Minutes of Mountstuart Elphinstone* (1884), pp. 303-4.

Mughal empire.

but little change, as there the petty chiefs were retained and allowed to collect the revenue from the villagers; and even where the appointment of revenue officials was the rule, the tendency was for the office to become hereditary and for the tax-gatherer to merge in the landed proprietor. Each superior landlord was required to maintain a quota of troops, and these forces were utilized as police to suppress internal disorders and to deal with serious outbreaks of such crimes as dacoity and robbery. The system of spies was also developed, and Haidar Alī in Mysore used his postal officials as an elaborate police intelligence department.

With the decline of the Mughal power the system of police fell into great disorder, and the petty chiefs and zamīndārs, no longer dreading punishment from above, used their adherents to ravage and plunder the lands of their neighbours. 'They extorted and amassed wealth which was dissipated in a jealous rivalry of magnificent pageantry. The weapons which were intended for the enemies of the state were turned against the state itself, and against each other, and were used for plans of personal aggrandizement, mutual revenge, or public plunder[1].' This evil example was followed by the village headmen and the village police. Most of the latter became thieves themselves, and many of the former harboured criminals and connived at crime for a share of the booty. The liability of the watchmen to restore the stolen property or make good its value was disregarded, and it was impossible to enforce the old village responsibility, that 'coarse but effectual remedy,' as Mountstuart Elphinstone calls it, 'against the indifference of the neighbourhood to the sufferings of individuals.'

First efforts towards police organization under British rule.

This was the state of things which the British found in the early days of their rule, and as a first step towards reform the zamīndārs were relieved of their police duties, which were transferred to the District Magistrates, each District being divided into small police jurisdictions with an area of about 20 square miles. This formed the charge of a *daroga*, who had under him twenty to fifty armed men, and was also given authority over the village watchmen. This system, which entirely disregarded the village headman and converted the watchman from a servant of the village into an ill-paid and disreputable subordinate of the *daroga*, proved to be an expensive failure; and, owing largely to the representations of Elphinstone and Munro, it was abolished, under orders issued by the Court of Directors in 1814, in all the Company's possessions except

[1] *East India Judicial Selections*, vol. i, p. 154.

Bengal, in many parts of which Province the village system did not exist. An endeavour was made there in 1807 to re-establish the landlords in their police functions by giving them authority to act as *amins* or commissioners of police. But the old establishments had been dissolved and the scheme did not meet with great success.

It was many years before the police administration advanced much beyond this initial stage. It remained, as a rule, in the immediate charge of the District Magistrate, who had under his control a loosely organized body of civil police and the indigenous local agency. Much of the guard and escort duty incident to the work of civil government was performed by the native army, a costly and inconvenient arrangement. As work increased the Magistrate was unable to devote sufficient time to purely police duties, and his magisterial and police functions were found to clash. In the time of Lord William Bentinck, 1828–35, complaints of the inefficiency and corruption of the police were universal. The first measure of reform was the appointment of separate Superintendents for the police of the Presidency towns[1]. In the country generally the earliest important attempt at improvement was made by Sir Charles Napier in Sind. He drew up a plan on the model of the Irish Constabulary, the main characteristics of which were separate organization, severance of police and judicial functions, and a reasonable degree of discipline; and this was extended a few years later to the Bombay Presidency proper. Shortly after the annexation of the Punjab a double system was introduced into that Province, consisting of a detective force on existing lines and a semi-military force for escort and guard duty. Similar arrangements were made on a more extensive scale in the Province of Agra immediately after the Mutiny. In Oudh a large body of military police had been raised during the Mutiny, and, after the pacification of the country, it was reduced in numbers and reorganized on a civil basis, unconnected with either the military or judicial authorities. Smaller battalions of military police were also raised in Bengal. In the meantime the appointment of a Commission to investigate the alleged practice of torture by native officials in Madras had drawn prominent attention to the condition of the police force in that Province. It was reorganized by an Act passed in 1859, the main features of which were similar to those of the Act which was shortly afterwards passed for India generally. The cost of

Progress of reform. Police Act of 1861.

[1] Calcutta had a Superintendent of Police as early as 1808, but up to 1829 his jurisdiction included a large portion of the surrounding country.

the double police force in the Province of Agra and the Punjab proved prohibitive, and it was eventually decided to introduce the Oudh system of a single body for detective, protective, and miscellaneous duty. In 1860 a Commission which had been appointed to inquire into the whole subject of police administration recommended the establishment of a well-organized and purely civil constabulary, supervised by European officers, and capable of carrying out all ordinary civil duties, including the provision of guards and escorts. The village police should, the Commission advised, be retained on their existing footing, being brought, however, into direct relationship with the general constabulary. The proposals of the Commission formed the basis of an Act passed in 1861, which, with some amendment, still regulates the administration of the police throughout the greater part of India, and which permitted a considerable reduction in the native army. In Madras the Act of 1859 (amended in some particulars) is still in force. A separate Act was passed for the Bombay Presidency in 1867, and was replaced in 1890 by a fresh Act, which was extended to Sind in 1902. Further legislation will be required to carry out the orders of the Government of India on the report of the recent Commission.

Organization of the department.

The police establishment under each Local Government forms in most Provinces a single force, and is formally enrolled. In Bombay there is a separate force for each District. The Provincial police is under the general control of an Inspector-General, who is in some Provinces a member of the Indian Civil Service. In most cases he is assisted by Deputy-Inspectors-General, who hold subordinate charge of portions of the Province. Police administration throughout a District is under an officer styled the District Superintendent. He is responsible for the discipline and internal management of the force, and is the subordinate of the District Magistrate in all matters connected with the preservation of peace and the detection and suppression of crime. In Madras the control exercised by the District Magistrate is less detailed than in other Provinces. In large Districts the Superintendent has an Assistant, who sometimes works under him at head-quarters and sometimes (usually in Madras) holds charge of a portion of the District. An officer of the superior police department enters as an Assistant, rises in due course to the post of District Superintendent, and may be selected to be Deputy-Inspector-General and, in some Provinces, Inspector-General. The controlling staff is composed almost entirely of Europeans.

Recruitment has hitherto been partly by open competition in England, partly by examination after nomination in India, and partly by the promotion of subordinate officers; but it was decided in 1905 that appointments in India should henceforth be made only with the special sanction of the Government of India. A new grade of Deputy-Superintendents, with similar duties to those of Assistant-Superintendents, is to be created, the members of which will be exclusively natives of India. In some Provinces, and notably in Bombay, where there are no Deputy-Inspectors-General, the Commissioner of the Division has special control over the police, apart from his position as administrative head of the Districts within his jurisdiction. This principle is to be extended to all parts of India where there are Commissioners.

Reserve, armament, and military police.

At the head-quarters of each District a reserve is maintained under the command of an Inspector (a chief constable in Bombay). This reserve supplies men for escort, guard, and miscellaneous duty, and serves to strengthen the police in any part of the District where disturbance may be apprehended or other emergency may arise. Recruits pass some time in the reserve for the purpose of learning their duties. The reserve is trained to act in concert and to shoot, but is not drilled up to a standard of military efficiency. The reserve and a portion of the general-duty police are armed with breech-loading smooth-bore guns or carbines, and a small number, in tracts where they are likely to encounter armed resistance from dacoits and other law-breakers, carry rifles. The subordinate officers wear swords, and the truncheon is the general arm of the constable. About 2,600 are mounted. The proposals of the recent Commission involve an increase of the reserves in several Provinces.

A force of military police, the total strength of which is about 20,000, is still maintained in unsettled frontier tracts in Bengal, Assam, and Burma, and in the North-West Frontier Province. Three-quarters of this force is maintained in Burma, and, though under the Local Government, it is organized in battalions under military officers and largely recruited from the martial races of Northern India.

The general peace of the country is secured by the provisions of the Indian Arms Act, which restricts the possession of fire-arms and other weapons within narrow limits; and the occasions on which the military have to be called on to suppress riots (mostly arising from religious or caste questions) are comparatively rare.

District organization.

Each District is subdivided for police purposes into sections under Inspectors. In Madras and Bengal the Inspector is placed in executive charge of a subdivision, and is directly responsible for the working of its police. In Bombay and the United Provinces he is stationed at the District head-quarters and tours through his circle. To keep the police on the alert by constant inspections is everywhere his duty, and he does not, as a rule, personally investigate cases of crime. The Inspector's division is split up in all Provinces into areas in each of which is a police station under the charge of a subordinate officer, generally a sub-inspector in Bengal and the United Provinces, a head constable in Madras, and a chief constable in Bombay. This officer is primarily responsible for the working of the police within his charge, and is assisted by a body of petty officers and constables. It is his duty to inquire personally into cases of serious crime. It is now (1906) proposed to recruit sub-inspectors as far as possible direct, the proportion of vacancies to be filled by promotion from petty officers being fixed separately in each Province. On the other hand, Inspectors are to be recruited mainly by promotion, and not more than one-tenth will be appointed direct. In most Provinces there are subsidiary police stations known as outposts. In Bengal and Bombay these outposts are very numerous and are minor reporting and detective centres, while in the United Provinces they serve the special function of guarding the routes of traffic.

Village police.

Each police station has within its jurisdiction a number of villages, and for each village there is, as already explained, a *chaukīdār* or watchman. South of the Vindhyas the watchman is under the immediate control of the headman, on whom rests the obligation to report crime and aid the execution of justice; but in the greater part of Bengal there are no headmen, and the *chaukīdārs* are there virtually a low-paid regular police, while elsewhere in Northern India they are, as a rule, partly subordinate to the village elders or *lambardārs*, and in part directly responsible to the officer in charge of the police station. In 1905 the policy of strengthening the control and responsibility of the village headmen was reaffirmed. Village watchmen are remunerated in some Provinces by allotments of land and payment of fees: in others this system has been abolished, and monthly salaries are paid from a fund formed by a cess on land or houses, and from the revenue derived from the old landed endowments. Under either system hereditary claims are, whenever possible, respected.

The foremost duty of the *chaukīdār* is to report crime; but his functions are various, and extend to the arrest of offenders, general aid to the police, the maintenance of a watch over bad characters and suspicious persons, and the general supply of local information. He is appointed by the District Magistrate under various systems of local nomination, and may be punished and removed by the same authority. The village watchmen are often members of the criminal classes, a circumstance which was of little importance when they were held personally responsible for losses, but which now often obstructs the course of justice. That it is still possible to enforce the old responsibility is shown by the fact that in many parts of the country private persons employ members of the classes to which most of the village watchmen belong in order to ensure themselves against loss by theft or burglary. If a theft is committed, these private watchmen seldom fail either to restore the property or to make good its value. On the other hand, persons who refuse to employ such watchmen, or to pay the fees prescribed by custom, are quickly made to feel the power of these rivals of the regular police.

In towns the organization is on much the same lines as in the rural areas: there is a system of police stations, outposts, and beats, with careful arrangements for night patrol. Sometimes the duty of watch and ward is performed by town watchmen, subsidiary to the regular police, and corresponding in a measure to the village watch. The police in each of the Presidency towns, and in Rangoon, is organized as a separate force under a Commissioner, and European as well as native petty officers and constables are enrolled in it. Town police.

The railway police is organized separately from the District police, but acts in co-operation with it. The railway police charge under the Government of the Punjab includes the railway systems in the North-West Frontier Province; elsewhere these charges are, as far as possible, conterminous with the territorial jurisdiction of the Local Governments. The command of the railway police has hitherto been generally held by an officer immediately subordinate to the Inspector-General, but it has now been decided to place the force in each Province under a Deputy-Inspector-General. The railway police are, as a rule, concerned only with the maintenance of law and order, watch and ward over railway property being provided for by the railway administrations. Railway police.

In most Provinces recruits are trained at the head-quarters Training.

of the District, where they receive instruction in drill and are taught the elements of the law relating to their powers and duties. The difficulty of ensuring a proper training was pointed out by the recent Commission, and it has now been decided to form central schools in all Provinces but Burma. Except in Madras and Burma, the great majority of the rank and file are illiterate, and their instruction in subjects other than drill is, therefore, a matter of some difficulty. Madras, Bengal, the United Provinces, and the Punjab possess police training-schools (at Vellore, Bhāgalpur, Morādābād, and Phillaur) for the instruction of candidates for the post of investigating officer, and other Provinces have recently (1906) arranged to open similar institutions. The students consist of youths specially recruited for this post as well as of men already in the force. Probationary Assistant-Superintendents are also attached to these schools for a period of training, which in future will extend to eighteen months.

Detective work.

The Code of Criminal Procedure divides offences into 'cognizable' and 'non-cognizable,' according as the culprit may or may not be arrested without a warrant. The police are mainly concerned with cases of cognizable crime. The following is an example of the ordinary procedure on the occurrence of a case of serious cognizable crime, such as burglary. Information having been brought to the police station by the village watchman, accompanied very likely by the complainant, the statements are reduced to writing and the officer in charge of the station proceeds to the locality to take up the investigation. Every stage in the proceeding, and its result, is recorded in a diary, in which are also set down the statements of the persons examined. These may not, however, ordinarily be used in evidence. If necessary the investigating officer may search any house for stolen property or other articles throwing light on the crime. If the accused person confesses his guilt, his statement has to be recorded by a magistrate, who must certify that, to the best of his belief, the confession is voluntary. These precautions are taken to guard against the extortion of confessions by torture or undue influence. If the investigation results in the detection of the supposed criminal, the police officer arrests him and sends him to the local magistrate, who either remits him to custody or releases him on bail. The police may not detain an accused person for more than twenty-four hours without a magistrate's special orders. When the case is complete, the papers are sent to the magistrate (very often they accompany

the accused), and the prisoner is tried or committed to sessions. If the investigating officer finds no case for trial, he sends up the papers marking the case as true[1], false owing to mistake of law or fact, or maliciously false, as the case may be. The magistrate then orders further proceedings or records the case under one or other of the above heads. In maliciously false cases the complainant may be prosecuted.

Court duties. The prosecution of cases before magistrates is an important portion of police work. In special cases a pleader may be engaged, or the work may be performed by the District or Assistant Superintendent; but ordinarily the prosecution of important cases is conducted by an Inspector, sub-inspector, or other police officer who has not himself been engaged in the investigation of the case. In minor cases the proceedings are directly conducted by the magistrate, with such assistance as he may think fit to take from the investigating police officer. Cases which come before the Courts of Session are conducted by a Government Pleader, who may also on occasion be employed in the lower courts.

Preventive action of the police. A register is kept at each police station of habitual offenders, suspected characters, and released convicts sentenced for grave crime, and a watch is maintained over their movements by the police and the village watchmen. A *chaukīdār* should, for instance, report any change of address, and should know if a bad character is in the habit of being out on dark nights. Special supervision is exercised over convicts guilty of heinous crime and released before the expiry of their sentence under the mark system[2]. Vagrants, persons concealing their presence in order to commit an offence, and persons proved by repute or otherwise to be habitually concerned in the commission of crimes, such as robbery, theft, and receiving stolen property, may be called on to furnish security for good behaviour or be imprisoned in default. Frequent recourse is had to this salutary provision of the law. Persons convicted of, or likely to commit, a breach of the peace may be bound over to keep the peace. Throughout India there are castes and tribes who live largely by the commission of crime, especially thefts, robberies, and cattle-lifting, and whose operations have been facilitated by the development of road and railway communications. In their case the operation of the caste system leads them to regard their practices as a normal and quite respectable

[1] A 'true' case, under these circumstances, would be one in which a crime was found to have been committed, but there was held to be no adequate evidence implicating any particular person.

[2] See p. 402.

means of livelihood. They commit offences against property 'not only with no thought of criminality, but in the belief that in following the custom of their forefathers they are acting in the only way that is right[1].' A special watch is kept over the doings of these sections of the community, and various Acts have been passed for the purpose of reclaiming the most dangerous among them, and of protecting society against their depredations. A powerful agency for the detection of habitual offenders has been secured in the system of recording and classifying the finger-tip impressions of persons guilty of grave crime. This system owes its inception to an Indian magistrate (Sir W. Herschell), and its extension to the identification of old offenders was rendered possible by the labours of Mr. Henry, Inspector-General of Police, Bengal, in which Province it was first introduced. The method has been skilfully elaborated and is now used with considerable effect. In Bengal, in 1899, successful search was made in over 45 per cent. of the cases sent for comparison to the central office where the classified records are kept.

The Thagī and Dakaiti department.

The crime of *thagī*[2] has practically ceased to exist in India; and although robbery and house-breaking by armed gangs are offences with which the authorities have still to cope, the peaceful villager of the present day has throughout the greater part of the country almost lost recollection of the times when his forefathers were harassed and pillaged by marauding bands of freebooters or dacoits (*dakaits*)[3]. The existence, till very lately, of a 'Thagī and Dakaiti department' bore testimony to the manners of other times, but although the department long retained its old title, its duties changed with the progress of peace and civilization. Systematic measures for the suppression of *thagī* were begun in 1830, during the Governor-Generalship of Lord William Bentinck, and the name of Sir William Sleeman is associated with the successful conduct of these operations. The department organized for the suppression of *thagī* was entrusted in 1839 with the additional duty of suppressing dacoits. When the police was reörganized in 1860–3 this special department was no longer needed for British territory; and it became mainly concerned with the suppression of

[1] Sir J. Strachey's *India*, 1903 edition, p. 399.

[2] *Thags* were professional assassins, united by obedience to the goddess Kālī, in whose honour they strangled their victims.

[3] Under the technical definition in the Indian Penal Code the commission or attempted commission of robbery by five or more persons constitutes the crime of dacoity.

organized dacoity in Hyderābād, Central India, and Rājputāna, and the capture of dacoits who had fled from British to native territory. It did not interfere with the authority of the Native States in the suppression of ordinary crime, but, at the request of the political officers, it investigated inter-statal cases. At the head of the department was an officer styled the General Superintendent, immediately subordinate to the Government of India in the Foreign Department, and under his control was a staff of officers and men, stationed at various places in the Native States, and working under the supervision of the political officers and in conjunction with the local police. In 1887 the department was further entrusted with the work of collecting and comparing intelligence regarding organized crime, but its machinery was not well adapted for this purpose.

The Central Criminal Intelligence department.

In 1904 the Thagī and Dakaiti department as thus constituted was abolished, its establishments at Hyderābād being merged in the police force of that State, while those in Rājputāna and Central India were transferred to the control of the Agents to the Governor-General. The former central office was replaced by a department of 'Central Criminal Intelligence,' working under the Home Department of the Government of India. The object of this new department is to collect and communicate information regarding such forms of organized crime as are committed by offenders operating along the railway system, and by criminal tribes, wandering gangs, organized dacoits, professional poisoners, forgers, coiners, and the like, whose operations extend beyond the limits of a single Province. Railways, posts, and telegraphs have enabled astute criminals to disperse or concentrate in a manner that baffles purely local authorities: this central agency has become necessary to procure the knowledge and co-operation requisite for dealing with them, and it will work in connexion with the police of Native States as well as with those of British Provinces. The new department is under the control of a Director, with an experienced Deputy to assist him. The officers to be appointed Deputy-Inspectors-General of Railway Police (see p. 391) will also be the heads of Provincial Criminal Investigation departments which it is proposed to constitute.

Defects and reforms in the police.

The existing police organization is a great improvement on the system which it replaced, and it has done much useful work. It is, however, notorious that it has not been in all respects satisfactory. The detective agency has too often proved incompetent, supine, or dishonest, and the old Eastern traditions of extortion and the maltreatment of prisoners have

never been entirely eradicated. The history of crime, especially of late years, has not shown the improvement which the general progress of the country should have brought with it, while the police have failed to secure that degree of popular confidence which is necessary for thoroughly efficient work. In 1888–9 the Government of India, in conjunction with the Local Governments, made a searching inquiry into the history of crime since 1875 and into the working of the police force. The investigation did not lead to the conclusion that there had been any serious increase of crime, except perhaps in the Punjab; but the detective work of the police appeared to have suffered deterioration in some Provinces, and it was generally admitted that there were defects in the system needing reform. The evidence also showed that the emoluments and prospects of the force, and especially of the detective agency, were sometimes insufficient to secure intelligence and to encourage probity and zeal. The Government of India suggested various improvements, and the Local Governments worked out careful schemes in accordance with these suggestions. Although financial exigencies did not permit of the changes recommended being carried out in their entirety, the position of the subordinate officers and men of the police has been improved at considerable cost. In 1888 the total strength of the organized civil police force was about 129,000 men, and the cost 242 lakhs; in 1901 the strength was about 145,000 men, and the cost 328 lakhs. The local village watchmen aggregate about 700,000 men.

Recent increase of crime. Police Commission of 1902–3.

During recent years, though the people at large still maintain their law-abiding character, there has been a considerable increase of serious crime in the principal Provinces of the Indian Peninsula, and the increase has been specially marked in the case of heinous offences, such as murder, dacoity, and robbery. Repeated seasons of famine and high prices have exerted an important influence on the statistics of crime, but this cause cannot be regarded as solely responsible for the phenomenon. In most Provinces there has been some advance in the detection of the worst forms of crime, but on the whole it would seem doubtful whether there has been adequate improvement since the reforms inaugurated in 1888. The Government of India recently considered the whole question, and, with the approval of the Secretary of State, appointed a Commission in 1902 to inquire into the police administration. The report of this Commission embraced a wide field, covering every branch of the subject. In addition to the

reforms which have been already referred to, the Government of India has approved of substantial increases in the pay of all grades, besides other measures to improve the condition and efficiency of the police. The budget for 1905–6 included grants of 50 lakhs to Local Governments for the purpose; and directions were issued that this sum should be devoted, in order, to the increase in the armed reserves rendered necessary by the proposed redistribution of the army, to the improvement in the pay of constables, and to increasing the number of investigating officers, who will now invariably be sub-inspectors.

II. Jails

Muhammadan system of punishments.

The criminal law of the Muhammadans, which prevailed largely in India prior to British rule, is characterized by the cruel nature of its penalties. The Korānic law punishes adultery with death by stoning, highway robbery accompanied by murder with death by the sword or crucifixion, simple highway robbery with loss of hands and feet, theft with amputation of the right hand, wine-drinking and false accusation of adultery with a flogging of eighty stripes. For minor offences the prescribed punishments included stripes, imprisonment, and *jarr*. A culprit sentenced to the last penalty was dragged to the door and exposed to public contumely. The extreme rigour of the Korānic law was mitigated in practice, and the spirit in which it was administered in India depended in a measure on the character and inclinations of the sovereign. During the reign of the humane Akbar the severity of the penalties was modified by instructions drafted by the emperor or his advisers. A mandate to the governor of Gujarāt restricted his punishments to putting in irons, whipping, and death. He was to be sparing in capital punishments, and, unless in case of dangerous sedition, to inflict none without the emperor's confirmation. Nor was he to permit executions to be accompanied by mutilation or other torture. The comparative leniency of Akbar's criminal system was not, however, maintained under his successors. When the proceedings of the Muhammadan criminal courts came within the sphere of the Company's administration, impalement, mutilation, and flogging were ordinary forms of punishment. In the England also of those days the criminal law retained much of its early barbarity. The public hanging of thieves and other felons was a common spectacle, the pillory was in constant use, and men and women were still whipped through the streets at the cart's tail. Accustomed as they were

to the infliction of such penalties, the cruelty of the Muhammadan law did not outrage the feelings of the early administrators of the Company. In Calcutta, where the English law obtained, flogging with a rattan was the penalty commonly inflicted on petty offenders of both sexes. Outside the Presidency towns criminal justice was at first administered under the Muhammadan law, and for some years the Muhammadan system of punishment was suffered to continue. The old records of Chittagong District show that the punishment of impalement was inflicted on dacoits as late as the year 1782, and that the civil officers applied to the military authorities for guards to attend the execution. In Madras the punishment of mutilation was in common use up to the end of the eighteenth century.

Introduction of the Indian jail system.

The change of sentiment which had occurred in England before the beginning of the nineteenth century made the continuance of such barbarous penalties impossible. About 1790 the punishment of mutilation was forbidden by law in Bengal, and the criminal courts were directed to inflict imprisonment with hard labour in its stead. By this time jails had been established under the control of the magistrates, and more modern notions regarding the treatment of criminals began to prevail.

The early Indian jail system was, like its English prototype, insanitary, demoralizing, and non-deterrent. All classes of male criminals were mixed together, and convicts were, in many cases, better clothed and fed, and more lightly worked, than free labourers. Prisoners were often employed in gang-labour on the roads under the magistrate or under public works officers. In such jails as existed the discipline was lax, and, except in some places in the Madras and Bombay Presidencies, intra-mural labour was in a rudimentary condition. The mortality, especially among those who laboured on the roads, was very high.

Progress of reform.

In 1834 a regulation was passed for the improvement of prison discipline, and shortly afterwards the first great measure of prison reform was inaugurated at the instigation of Lord Macaulay. He pointed out the defective condition of jail discipline, and suggested the appointment of a committee to collect information and prepare an improved plan. This suggestion was adopted, and the report of the first Prisons Commission, which was presented to the Government in 1838, recommended a series of radical reforms. The Commission condemned the system of road-gangs, and proposed that convicts should be confined and put to labour in large central

prisons, supplemented by smaller District jails in which adequate arrangements should be made for classification and discipline. In accordance with the notions prevailing in those days, they advised that labour should be enforced by 'machines which render the working at them a dull, wearisome, and disgustful exertion.' The Commission further recommended that one or more prison inspectors should be appointed for each Province. Lord Auckland's Government accepted generally the views of the Commission, but, having regard to the great expense which they entailed and the many difficulties that beset the introduction of a complete jail system in India, enjoined caution in carrying them out. In point of fact much progress had not been made when Sir John Lawrence reviewed the position in 1864 and appointed the second Prisons Commission. Their report proceeded on the lines of that of 1838, and laid down a well-considered system which in its essential features is still in force. It was followed by more effective action and a large increase in jail accommodation. Separate Acts were passed for the regulation of prisons in Madras, Bombay, Bengal, and the Provinces having no legislature of their own, and under these Acts considerable differences grew up in the practice prevailing in different parts of India. In 1876 Lord Lytton appointed a third Commission to make a general review of the subject, and in particular to suggest means for introducing more uniform regulations and for making short sentences more deterrent. A Bill was prepared on the basis of the Commission's report, but it never became law, and the question was allowed to drop for several years. In the time of Lord Dufferin attention was again directed to the diversity of practice, and two officers of experience were appointed to visit the jails of the different Provinces, and to investigate on the spot questions regarding health, discipline, and general administration. They made an exhaustive inquiry, and their report, submitted in 1889, dealt with prison discipline and management in all its aspects. It was supplemented by a conference of experts on the subject of prison offences and punishments. A general Prisons Act for British India (IX of 1894) was then passed, and regulations were issued under it by the Governor-General-in-Council and the Local Governments.

Forms of imprisonment.

The forms of imprisonment authorized by the Indian Penal Code are transportation, penal servitude, rigorous imprisonment (i.e. with labour), and simple imprisonment. When rigorous imprisonment is inflicted, the court may also order solitary confinement during a portion of the sentence. Accommodation

in the jails has also to be provided for civil and under-trial prisoners.

Classification of jails.

There are several grades of Indian jails. In the first place, large Central jails for convicts sentenced to more than one year's imprisonment; secondly, the jails at the head-quarters of Districts; and, thirdly, subsidiary jails in the interior of Districts for under-trial prisoners and convicts under short sentences of imprisonment. In 1903 British India contained forty Central jails, 192 District jails, and 498 subsidiary jails and lock-ups.

Jail establishments.

The Jail department in each Province is under the control of an Inspector-General, who is generally an officer of the Indian Medical Service with jail experience, and the Superintendents of Central jails are usually recruited from the same service. The District jail is under the charge of the Civil Surgeon and is frequently inspected by the District Magistrate. The staff under the Superintendent includes, in large Central jails, a deputy superintendent to supervise the jail manufactures, and in all Central and District jails one or more subordinate medical officers.

The executive staff is divided into two classes. The higher class consists of jailors and deputy and assistant jailors, who form a single Provincial service with promotion from one grade to another. The lower class comprises the warders for the supervision and guard of prisoners; they also form a graded local service. Convict petty-officers are employed in all Central and District jails. This practice is suited to the conditions of India, where the majority of prisoners are not professional criminals, and can be placed over their fellow-convicts without demoralizing them. The rules under which the convict officers are selected preclude the appointment of degraded criminals and prescribe a high standard of conduct in jail, while the prospect of promotion to one of these posts is a strong inducement to good behaviour. Arrangements for guarding convicts follow the principle that the prisoner, in his workshop or sleeping ward, should be watched rather than the walls of the jail. In olden days prisoners were generally fettered for better security; this system has long been abandoned, and fetters are now used only as a punishment or to restrain violence.

General features of the jail system.

The general characteristic of the Indian prison system is confinement in association by day and night. The desirability of separate confinement by night, and of cellular confinement during the first part of long, and the whole of short, sentences, is recognized, and the Government of India has repeatedly

drawn attention to the subject. There are, however, difficulties attending this: the cost of providing cellular accommodation is very great, and free ventilation is essential in a jail in the Indian plains. Steady progress has been made during recent years, and many sleeping wards have been fitted with cubicles. The provision of cells for separate confinement has been carried farthest in Madras, where a special penal routine has been introduced for the first stage of confinement. Discipline is maintained by a parade system, and the life of the convict is controlled by rule in its minutest details. Prisoners are kept separate under the following classes: persons under trial, females, juveniles, civil prisoners, ordinary convicts, habitual offenders, and sick prisoners. Prisoners under sentence of labour rise at daybreak, take their early meal, work through the morning, are allowed a mid-day interval for rest and food, work again until evening, and, after a third meal, are locked up for the night. The hours of work amount to about nine a day. The dietary varies in different parts of the country with the staple food of the people. Great pains have been taken in all Provinces to regulate it on a scale which is sufficient to maintain good health without being lavish or extravagant. The disease and mortality statistics of the jail population have been discussed in chap. x of Vol. I; and it need only be observed here that the jail death-rate has been reduced until it compares favourably with that of the general working population—a great achievement, considering the large proportion of criminals who are physically as well as morally below the average.

Employment of prisoners.

There are three classes of labour—hard, medium, and light; and a prisoner is employed on one or another class according to his physical capacity. Work is mostly carried on within the jail walls, but convicts are sometimes employed near the jail, and extra-mural employment on a more extensive scale is approved in the case of projects so large as to make it worth while to erect special accommodation. These conditions do not often exist, but a large number of convicts have recently been employed in excavating the Jhelum Canal in the Punjab. Within the walls prisoners are employed on jail service and repairs, and in workshops. The main principle laid down with regard to jail manufactures is that the work must be penal and industrial. The industries are on a large scale, and multifarious employments are condemned, while care is taken that the jail shall not compete with local trade. As far as possible industries are adapted to the requirements of the consuming public departments; and printing, tent-making, and the manufacture

of clothing are among the commonest employments. Other forms of manufacture are allowed in some jails: there is, for instance, a large and successful carpet manufactory in the Central jail at Agra. Schooling is confined to juveniles; the experiment of teaching adults has been tried, but literary instruction is unsuitable for the class of persons who fill an Indian jail.

Offences and punishments. Statistics.

A list of jail offences and punishments has been drawn up under the authority conferred by the Prisons Act. Punishments are divided into major and minor according to their severity. The offences have reference mainly to discipline, the introduction or possession of forbidden articles, food, clothing, sanitation, the care of jail property, work, assaults, mutinies, and escapes. The number of desperate characters among the convicts is small, and their conduct in jail is generally good. Failure to perform the allotted task is by far the most common offence. The principal punishments are formal warning, deprivation of privileges, penal diet, various forms of separate confinement, handcuffs, fetters, coarse clothing, and whipping. Female prisoners are exempted from whipping, fetters, and handcuffs. During 1903 the number of punishments inflicted averaged two per head of the average convict population—see the table at the end of this chapter, which gives statistics for the jail population, and shows also the cost of keeping and guarding prisoners, and the profits of jail manufactures.

Rewards.

The jail regulations provide a system of reward as well as of punishment. The principal rewards are promotion to the post of convict warder and remission of sentences under the mark system. Daily and special marks are awarded for industry and good conduct, and a certain number of marks earn a day's remission. This has been found to work well, and the convicts appreciate its benefits.

Female prisoners.

Female prisoners are confined in separate wards of the ordinary jails, under the charge of female warders. They are subjected to the same discipline as male convicts, the tasks being apportioned to their smaller strength. They are not transferred to Central jails so freely as males, as it is considered inadvisable, except in the case of long-term convicts, to send women to places at a distance from their homes. Lahore contains a special jail for female convicts.

Boy prisoners. Reformatories.

Boy convicts are confined in special wards, and are divided into children and adolescents. The latter class are kept separate, sleep in cubicles, and are provided with schooling

and industrial education. In 1903, 1,114 boys under sixteen were admitted to the various jails in British India. It is strictly enjoined that boys shall not be sent to jail when they can be dealt with otherwise. The alternatives provided by law are detention in a reformatory school for a period of three to seven years, but not beyond the age of eighteen; discharge after admonition; delivery to the parent or guardian on the latter executing a bond to be responsible for the good behaviour of the culprit; and whipping by way of school discipline.

In 1903 there were 1,168 boys in reformatory schools. At the beginning of that year there were seven such schools in British India, and another was opened at Delhi in October. Until 1899 these schools were, except in Madras, under the administration of the Jail department, and it was found that they were conducted too much on jail principles and without sufficient regard to reformation. To remedy these defects the control of the schools has been transferred to the Education department; and the authorities have been directed to improve the industrial education of the inmates, to help the boys to obtain employment on leaving school, and as far as possible to keep a watch over their careers.

Girl criminals.

Only 290 girl criminals were admitted to jail in 1903. The social conditions of native life do not permit of girls being detained for considerable periods in reformatory schools, and no such schools have therefore been established for them. Magistrates have been directed to apply, when possible, the power conferred on them by law to discharge on admonition or to deliver to the parent or guardian. In Bengal and the United Provinces a special dépôt for girl criminals has been established in a Central jail as an experimental measure.

Transportation. The Port Blair penal settlement.

Transportation is an old punishment of the British Indian criminal law. Bengal Regulation IV of 1797 authorized the *nizāmat adālat* (or superior criminal court) to sentence criminals to transportation beyond the seas. Several places were appointed for the reception of Indian transported convicts, and in 1838 Singapore, Penang, Malacca, Tenasserim, and the Mauritius were used for this purpose. The treatment of the convicts was lenient, and the discipline lax. The Prisons Commission of 1838 approved of the transportation of life convicts, largely on the ground of the terror inspired by banishment to a distant and unknown land. This terror has in a great measure disappeared, but on the other hand the rigour of the system has been much increased. Port Blair in the Andaman Islands is now the only penal settlement. It was first used in 1858 for

Mutiny prisoners, and was opened to general convicts in 1863. In 1902–3 the daily average convict population amounted to 12,182 men and 740 women. Under existing rules male convicts sentenced to transportation for life, or for a term of years of which six have still to run, are transported to the Andamans provided that they are medically fit. Females are transported if sentenced to transportation for seven years or upwards. The convicts are dispatched to Port Blair in batches during the calm season of the year. Under a scheme which has been sanctioned by the Government of India there will, hereafter, be five stages in the life of a male transported convict. The first six months will be passed in a cellular jail, the next eighteen months in association in a jail similar to those of the Indian mainland, and the following three years as a convict of the third class kept to hard gang-labour by day and confined in barracks by night. Having thus completed five years, a convict may be promoted to the second class, in which he is eligible for various posts in the barracks and jails, and for employment in the convict police or other Government service, or in the capacity of servant to a private resident. After five more years so spent, a well-behaved convict enters the first class, in which he labours under more favourable conditions, or is granted a ticket entitling him to support himself, with the grant of a plot of land on which to build a house. He may now send for his family or marry a female convict. The three later stages of this discipline have been in force for many years, but the two earlier have not yet been introduced in a complete form as the accommodation is not ready. The main portion of the cellular jail has been completed, and is already occupied, but the building of the associated jail for the second stage has not yet been begun. Females are kept at intra-mural work under strict jail discipline for three years, for the next two years they are subjected to a lighter discipline, and at the end of five years they may support themselves or marry a male convict. Promotion from class to class is dependent on good conduct, and bad behaviour may lead to degradation. The convicts are employed in jail service; in the erection and repair of jail buildings; in the commissariat, medical, marine, and forest departments; in tea-gardens, and at other agricultural work; and in various jail manufactures. At the end of 1902–3 there were 1,817 convicts in the semi-free or self-supporting stage out of a total of 12,724 in the settlement. For breaches of discipline and other jail offences convicts are punished by

reduction to a lower class, withdrawal of indulgences, transfer to a punishment-gang or ward, with extra hard labour and penal diet (and, in the case of females, with liability to have their hair cropped and to wear a refractory dress), solitary confinement, and corporal punishment (in the case of males only). Ordinary male convicts sentenced to transportation for life are released, if they have behaved well, after twenty years' imprisonment, and persons convicted of dacoity and other organized crime after twenty-five; but in both cases it is generally essential that fifteen years of the period should be passed in the settlement. *Thags* and professional poisoners are never released. Well-behaved female convicts are released after fifteen years, and in the case of local marriage husband and wife are liberated at the same time. The release is sometimes absolute and sometimes, especially in the case of dacoits, subject to conditions, e.g. in regard to residence. In some cases the released convicts prefer to remain in the settlement as free persons: they then earn a livelihood by agriculture, as shopkeepers, and in other ways. The settlement is administered by a Superintendent, aided by a staff of European assistants and native subordinates.

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Jail Statistics

	Average, 1885-90.		Average, 1891-1900.		1901.		1903*.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Daily average population	76,008	2,768	99,343	2,994	107,610	3,097	90,944	2,149
Admissions.								
For one year and under	125,508	8,940	147,134	10,314	141,865	9,898	124,854	7,471
Above one and up to five years	16,634	382	21,816	459	19,774	399	18,843	379
Above five and up to ten years	1,633	32	2,286	35	2,217	37	1,873	28
Over ten years	74	...	109	...	108	...	185	2
Transportation for a term	754	9	508	7	566	6	773	13
Transportation for life	1,022	80	1,024	95	993	98	872	89
Death sentences	478	20	598	24	546	18	620	18
Punishments	82,966		151,665		193,887		190,429	
Net expenditure on jails †	56,18		72,90		91,87		82,37	
Net profits from jail manufactures †	4,41		6,54		9,08		8,99	

* The decrease in jail population and admissions in 1903, as compared with 1901, is due to releases in celebration of His Majesty's Coronation, and to the prosperous conditions of the year.

† These figures, which are taken from the Finance Department's accounts, are in thousands of rupees, and are for the official year ending March 31.

CHAPTER XIII

EDUCATION

THE advent of British rule found a literature and a system of instruction existing among both Hindus and Muhammadans, in each case closely connected with their religious institutions. Indigenous systems of instruction.

To give and to receive instruction is enjoined by the sacred books of the Brāhmans, and their ancient sages produced a literature which is deep and subtle and often of great beauty. Schools of learning (*tols*) were formed in centres containing a considerable high-caste population, and *pandits* gave instruction in Sanskrit grammar, logic, philosophy, and law. The students were called the *chelās* or children of their *gurūs* or teachers, lived with them in a semi-filial relationship, and owed them obedience and respect. The *chelās* were lodged and fed by their *gurūs*, and the latter were maintained by gifts and grants of land from the rulers of the country or from private benefactors. Teaching was mainly by word of mouth, and the memory of the pupils was trained to enable them to repeat by heart long passages of the sacred texts. 'The student respectfully held the hand of his teacher, and fixed his mind on the teacher, and said, "Venerable sir, recite," and the *sāvitri* (the well-known *gāyatri* verse of the Rig-veda) was recited and learnt as the introduction to the learning of the Vedas. And thus from day to day new lessons were recited and learnt, the student dividing his day's work between minding his lessons and minding the household work of his teacher [1].' The Hindu system.

This advanced instruction was strictly confined to youths of the higher castes. For the lower castes village schools were scattered over the countryside, in which a rudimentary education was given to the children of the trading classes, the petty landholders, and the well-to-do cultivators. In many villages in Bengal and other parts of India these schools may still be seen working much as they must have worked in remote cen-

[1] *Civilization in Ancient India*, by R. C. Dutt. The *sāvitri* may be thus translated: 'Let us meditate on that excellent glory of the divine vivifier. May he enlighten our understandings.'

turies of the past. Seated under a tree or in the veranda of a hut, the children learned to trace the letters of the alphabet with their fingers in the sand, or recite in monotonous tones their spelling or a multiplication table which extends far beyond the twelve times twelve of the English schoolroom. Simple mensuration and accounts and the writing of a letter are the highest accomplishments at which this primitive course of instruction aims.

The Muhammadan system.

In former times the higher education of Muhammadans was in the hands of men of learning who devoted themselves to the instruction of youth. Schools were attached to mosques and shrines, and supported by state grants in cash or land, or by private liberality. Individual instructors of merit were also aided by the state, and landholders and nobles vied with each other in supporting scholars of repute. Several towns in India, such as Gopāmau and Khairābād in Oudh, and Jaunpur in the Province of Agra, have from time to time been famous seats of learning, to which students flocked from all parts of India, and even from Afghānistān and Bokhāra, to attend the lectures of renowned specialists. The course of study in a Muhammadan place of learning included grammar, rhetoric, logic, theology, metaphysics, literature, jurisprudence, and science. The classes of the learned instructors have been replaced by *madrasas* or colleges of a more modern type founded by the liberality of pious persons.

Elementary classes were included in the schools attached to mosques, but ordinary education was, as a rule, imparted at home. Householders of means engaged the services of a teacher to instruct their children in reading, writing, and arithmetic. Persian was the medium of instruction, and letter-writing and penmanship were highly prized accomplishments. The children learned to write on oblong boards, in appearance like a large edition of the horn-book, which could be washed clean at the close of the lesson. Less affluent neighbours were invited or allowed to send their children to the class, which sometimes attained the proportions of a small school. The schools were known as domestic *maktabs*, and the teachers were called '*maulvi sāhib*' or '*munshi sāhib*.' The profession was followed by both Muhammadans and Hindus. The old Indian pedagogue is the hero of many a folk-tale, in which he is sometimes depicted as a tyrant whom it was the pride and delight of the bolder spirits among his pupils to outwit, and at other times as the good-natured but lettered fool who fell into every trap that was laid for him. The pupils were bound to

respect and do menial service for their *maulvi*, and custom permitted him to make free use of the cane or to punish delinquents in any other way his ingenuity might devise.

Early history of education under British rule.

In England, during the early days of the Company's rule, the state still left the care of education to private enterprise and 'the pious founder.' The principles which prevailed at home naturally influenced the conduct of the administration in India, and the Court of Directors did little to supplement the indigenous systems of education existing in their territories. Their efforts were confined to the establishment of colleges for Oriental learning, such as the Calcutta Madrasa for Muhammadans founded by Warren Hastings in 1782, and the Benares College for Hindus established in 1791. About this time Mr. Wilberforce and other benevolent persons in England took up the cause of the education of the natives of India, and, after an unsuccessful attempt in 1793 to introduce a measure for the encouragement of missionaries and schoolmasters, succeeded in inserting a clause in the Charter Act of 1813 that one lakh of rupees in each year should be 'set apart and applied to the revival and improvement of literature and the encouragement of the learned natives of India, and for the introduction and promotion of a knowledge of the sciences among the inhabitants of the British territories in India.' The grant was devoted mainly to the upkeep of the Oriental colleges, the payments of stipends to students, and the publication of works of Oriental literature. But the cause of general education was not without its advocates. In 1815 Lord Hastings declared his anxiety to see some system of public instruction established, and the private endeavours of native and English gentlemen and of missionary bodies gave a fresh impetus to educational progress. Potent causes were at work which tended to direct the current of education into new channels. 'A knowledge of English became a means of livelihood to natives at the centres of government, and a demand arose for English instruction in the Presidency towns. As the old exotic court language, Persian, fell into disuse, and especially when it ceased to be the language of official life, the demand for education in the vernaculars which had superseded the foreign tongue made itself more widely felt. Meanwhile a new influence in favour of popular education was being brought to bear upon the Indian Government by missionary and philanthropic bodies both in this country and in Europe[1].'

Early missionary work.

At a very early date Christian missionaries assumed an honourable and important position in the history of Indian

[1] Report of the Indian Education Commission, 1883.

education. In the days of Portuguese ascendancy in the South the Jesuit fathers established a fairly wide system of education. When the scale turned in favour of British rule Protestant missionaries were no less zealous. Although at first opposed by the authorities through fear of native hostility to missionary effort, they established a number of colleges and schools in which many pupils were instructed in the learning of the West, and some of which, such as the Christian College at Madras, the Wilson College at Bombay, and the General Assembly's Institution at Calcutta, remain to the present day among the most important educational institutions of the country. The first English missionary college in India owed its foundation to the Baptists. In 1799 Carey and four other missionaries, in order to avoid the opposition of the British authorities, established themselves at Serampore, on the Hooghly, which was at that time a Danish possession. This group of Baptist missionaries rendered themselves illustrious by their literary activity, and in ten years the Bible was translated and printed, in whole or in part, in thirty-one languages. In 1818 they founded the Serampore College. The professed object of this institution was conversion, and to this end instruction in the tenets of Christianity was combined with Sanskrit and Arabic literature. In 1820 a college was founded at Calcutta, with funds subscribed in England in honour of Middleton, the first Anglican bishop in India, for the purpose of educating Christian youths to qualify them 'to preach among the heathen.' Another name celebrated in connexion with the early history of education in India is that of Dr. Duff, missionary of the Church of Scotland. He landed at Calcutta in 1830, and in spite of a host of difficulties succeeded in establishing a seminary for imparting literary, scientific, and religious education through the medium of English. These early missionary efforts had a most important influence in fostering the demand for English education. They taught the natives that English was a profitable acquisition, while the Government learnt the usefulness of English-taught natives in the public service.

Controversy between the Anglicists and the Orientalists.

But the claim of an English as opposed to an Oriental education was not established until after a long struggle. Two parties arose, both of which favoured the extension of vernacular education; but while the Orientalists desired that it should be supplemented by the study of the classical languages of the East, the Anglicists contended that the knowledge and science of the Western world should be thrown open to the

natives of India through the study of English. The Orientalists based their contention on the words of the Charter Act of 1813, on the alleged wishes of the people, on the fact that Hindu and Muhammadan law are derived chiefly from Sanskrit and Arabic works, and on the ground that the sacred books of the people are written in these languages. The majority of the Company's servants were at first in favour of Oriental education, but the party of change included prominent members of the native community, and in the end the scale was turned against the Orientalists. A minute written in 1835 by Lord Macaulay (at that time Legal Member of Council and a member of the Council of Education) had a great influence in determining the issue. After a striking eulogy on the English language he put the point in the following passage:—

'The question now before us is simply whether, when it is in our power to teach this language, we shall teach languages in which, by universal confession, there are no books on any subject which deserve to be compared to our own; whether when we can teach European science, we shall teach systems which, by universal confession, wherever they differ from those of Europe differ for the worse; and whether, when we can patronize sound philosophy and true history, we shall countenance, at the public expense, medical doctrines which would disgrace an English farrier, astronomy which would move laughter in girls at an English boarding-school, history abounding in kings thirty feet high and reigns thirty thousand years long, and geography made of seas of treacle and seas of butter.'

Nowadays it would be readily admitted that Lord Macaulay did but scant justice to the Oriental writers of antiquity; but in essence his contention was just, while his brilliant exposition carried conviction. Almost immediately after his minute was written, the Government issued a Resolution which decided unequivocally in favour of a Western education. In reaffirming the decision in 1839, Lord Auckland explained that the existing Oriental institutions were to be kept up in full efficiency.

Further history up to 1854.

It is not possible in a brief sketch to give an adequate account of the tentative efforts made during the next twenty years in accordance with the principles which had now become established. Missionary effort continued to play an important part in educational progress, the interest of enlightened natives was aroused, and the Government accepted an increasing share of work and responsibility. In Bengal, under the general control of a Council of Education, a number

of colleges and schools were established for the teaching of the upper and middle classes, but very little was done for the improvement of elementary education. The authorities shrank before the magnitude and difficulty of the task, and declared that education must be left to filter downwards to the great mass of the population. Indigenous rural schools or *pāthshālas* existed in large numbers, but the teachers were incompetent and miserably paid, and the instruction was of the rudest description. In the North-Western Provinces, which were separated from Bengal in 1836, a different spirit prevailed; and Mr. Thomason, who was Lieutenant-Governor from 1843 to 1853 and was warmly supported by Lord Dalhousie, succeeded in inaugurating a system of general elementary instruction. A Government school was established in each *tahsīl*, and from that centre surrounding indigenous schools were supervised, and the people and teachers were furnished with advice, assistance, and encouragement. The improvement of the indigenous schools proved, then as ever, exceedingly difficult, and the system was gradually superseded by the establishment of circle or *halkabandi* schools supported by a local cess. In Madras a Government high school was started at the Presidency town in 1841, and several other high and middle-class schools were established. In the matter of elementary schools the work of the Government was confined, for the most part, to furnishing some aid to private institutions, of which a considerable number had been founded by missionary societies. In Bombay, where education owed much to the enlightened efforts of Mountstuart Elphinstone, English schools were established at the headquarters of Districts, a number of vernacular schools, supported partly by the state and partly by the people, grew up under the control of a Board of Education, and indigenous schools were inspected and encouraged. A beginning had thus been made over large portions of India, but progress up to the year 1853 had not been encouraging. There were only fourteen Government colleges for general education; elementary vernacular education had been attempted with any degree of success only in the North-Western Provinces and Bombay; and the total number of pupils in Government colleges and schools of all classes in Madras, Bombay, Bengal, and the North-Western Provinces amounted to less than 40,000.

The dispatch of 1854.

Such was the position of affairs when, in 1854, Sir C. Wood (afterwards Lord Halifax) being President of the Board of Control, the Court of Directors decided that the Government

should afford assistance 'to the more extended and systematic promotion of general education in India,' and addressed the Governor-General-in-Council in a memorable dispatch which sketched in outline a complete scheme of public education, controlled and aided, and in part directly managed, by the state. The principles then laid down were reaffirmed in 1859 after the transfer of the administration to the Crown, and still guide, in the main, the efforts of the Government for the better education of the people. The dispatch of 1854 prescribed the constitution in each Province of a separate department of Public Instruction; the institution of Universities at the Presidency towns; the establishment of institutions for training teachers for all classes of schools; the maintenance of the existing Government colleges and high schools, and the increase of their number when necessary; the establishment of new schools between the elementary and high schools; the multiplication and improvement of vernacular schools, indigenous and other, for elementary education; and the introduction of a system of grants-in-aid of schools maintained by private persons or bodies. The attention of the Government was to be specially directed to placing the means of acquiring useful and practical knowledge within the reach of the great mass of the people, 'who are utterly incapable of obtaining any education worthy of the name by their own unaided efforts.' English, which was to be taught where there was a demand for it, was to be the medium of instruction in the higher branches, and the vernacular languages in the lower.

Later history, 1854-71.

In spite of the dark days which followed close on the dispatch of 1854, the Government in India at once took vigorous action on the instructions of the Court of Directors, and a great impetus was given to all forms of educational activity. The progress up to the present time is illustrated by the table at the end of this chapter. The table refers only to institutions which are classed as 'public' in the educational statistics. 'Public' institutions include all those which are managed or aided by the state or by local or municipal bodies, or which, although they receive no grant of public money, are recognized by the Education department as institutions which may send up candidates for Government scholarship and certificate examinations, and which may receive Government scholars. Institutions and pupils are classified in the table under the primary, secondary, and collegiate stages. Primary education may be roughly described

as the instruction of the masses through the vernacular; secondary education denotes all school teaching, whether in English or in the vernacular, beyond the elementary stage; and collegiate education the instruction given in institutions affiliated to the Universities. The Universities of Calcutta, Madras, and Bombay were founded in 1857, and by 1861 the new system was in general working order. In that year the number of pupils in public institutions in the Provinces of Madras, Bombay, Bengal (including Assam), and Agra amounted to about 230,000, of whom 200,000 were in the primary stage. More than 5,000 public primary schools, and 142 secondary schools, had by this time been established in these four Provinces. During the next few years the progress of primary education, though considerable, did not keep pace with the extension of education of a higher class. In 1871 there were in all British India about 518,000 pupils in primary schools, while the pupils in secondary schools numbered 206,000. The grant-in-aid system did not secure an adequate development of primary instruction; and the period following the Mutiny was one of great financial difficulty, which compelled the Government to husband its resources in order to meet the growing claims made on it for all branches of the administration. From 1865 onwards the funds available for education (especially primary education) and other local needs were augmented by the rapid development of the municipal system, and by Acts for the imposition of local cesses to supersede the semi-voluntary local taxation in force in several Provinces. The first Cess Act was passed for Sind in 1865, Madras followed in 1866, Bombay in 1869, and the United Provinces and the Punjab in 1871. The Act passed for Bengal in 1871 applied only to provision for communications: from the outset indigenous agency was more relied on in this Province than elsewhere for the spread of vernacular education, but up to that date the measures taken for its improvement had not been adequate.

1871–1902. Between 1871 and 1882 a remarkable development took place. In the latter year more than $2\frac{1}{4}$ million pupils were receiving instruction in 90,000 public institutions. The number of primary pupils had more than quadrupled, as against an increase of 8 per cent. among pupils in the secondary stage[1]. About 6,000 scholars were under instruction in sixty-seven Arts colleges affiliated to the several Universities.

[1] It is possible that changes in classification make the result, so far as secondary education is concerned, appear less favourable than the actual facts.

A Commission was appointed in 1882 to review the progress and criticize the working of the system. The Government of India was able to congratulate itself on the result, and the general principles of 1854 were reaffirmed and amended, and supplemented by a number of fresh instructions. Shortly after this the management of Government schools was, in large measure, made over to municipalities and District boards under Lord Ripon's scheme of local self-government. The progress since 1881–2 has been considerable; but the rate of development in primary education which occurred in the preceding decade has not been maintained, while during the past few years the work has been greatly hindered by plague and famine.

At the end of the year 1901–2 nearly 4,000,000 students were under instruction in about 105,000 public institutions of all grades, and more than 600,000 pupils were being taught in about 43,000 private institutions outside the scope of the department of Public Instruction. Compared with 1881–2 the number of pupils in primary schools had increased by 49 per cent., and of pupils in secondary schools by 180 per cent., the rate of progress of primary education having again fallen below that of higher instruction. More than 17,500 undergraduates were at the end of the same year receiving instruction in 145 Arts colleges, while 46 colleges for training in law, medicine, and other professional studies had an aggregate attendance of nearly 5,400 students. Notwithstanding the great increase recorded in the number of scholars, the Census of 1901 showed that in all India the proportion of persons able to read and write to the total population was still only 98 per 1,000 in the case of males and 7 per 1,000 in the case of females. The table on the next page shows the ratios in the Provinces and Native States. Burma owes its predominant place to the diffusion of elementary instruction by the Buddhist monks; but the standard of their teaching is very low, and if a higher test than the mere ability to read and write were adopted, the Province would occupy a very different position.

'It is worthy of note that in the north-west of India, where the Aryan element in the population is believed to be strongest, the people are far more ignorant than in the east and south, where the Mongolian and Dravidian races predominate[1].' As regards religions, the order of literacy is as follows:—Pārsīs, Jains, Buddhists, Christians, Sikhs, Hindus, Muhammadans, Animists. The Census shows 68 males and

[1] *Census Report for India*, 1901, chap. v.

7 females in every 10,000 of the population as literate in English. Here Bombay, Madras, and Bengal hold the first place among the larger political units. There are also, and especially in Madras, a good many people who can speak English but cannot write it.

Province or State.	Number of Persons per 1,000 able to read and write.	
	Males.	Females.
Burma	378	45
Travancore	215	31
Baroda	163	8
Madras	119	9
Bombay	116	9
Bengal	104	5
Mysore	93	8
Berār	85	3
Assam	67	4
Punjab	64	3
Rājputāna	62	2
United Provinces	57	2
Central India	55	3
Hyderābād	55	3
Central Provinces	54	2
Kashmīr	38	1

Periodical review of the progress of education.

Since 1882 the condition and progress of the educational system have been passed under periodic review, and the Government has on each occasion issued such fresh regulations and orders as appeared at the time to be desirable. The review made in 1898 was followed by a searching inquiry which revealed much diversity of practice, some serious defects, and many opportunities for improvement. Vigorous measures of reform were instituted. A conference of Indian educationalists and administrators was convened to discuss all branches of the subject; an officer from England was appointed adviser to the Government of India in educational matters, with the title of Director-General of Education; a Commission was constituted to inquire into the condition, prospects, and needs of University education; and an expert committee travelled through India to investigate and advise on the system of technical education. Some of the projected reforms have already been carried out, others are still in the preliminary stage[1].

[1] See on this subject an important Resolution of the Government of India (dated March 11, 1904, Nos. 199-211), which sums up past educational achievements and indicates the lines on which future progress should be made. The Resolution is printed as an Appendix to the *Review of the Progress of Education in India*, 1897-8 to 1901-2.

The special obligation of the Government towards the vernacular education of the masses, which was declared by the Court of Directors in 1854, was endorsed by the Education Commission of 1882, and has been reaffirmed by the Government of India whenever it has reviewed the progress of education. But the practice has fallen behind the precept. At the end of 1901–2 only about one-sixth of the boys of school-going age (calculated at 15 per cent. of the total male population) were following the primary course in public institutions. The percentage varies from 23 and 22 in Bengal and Bombay to 9 and 8 in the United Provinces and the Punjab. Primary education. Progress.

Several causes have contributed to the slow growth of primary instruction. When the Education departments began to devote their attention to the extension and improvement of primary instruction, they had in the first place to deal with a portion of the population who were accustomed to and valued education, and who lived in populous and easily accessible parts of the country; and they were aided by a more or less widespread system of indigenous schools. In such circumstances progress was comparatively easy. These favourable conditions have been to a great extent exhausted, and the portion of the problem which remains to be dealt with is far harder. The benefits of education have now to be conveyed to the poorer ryots and the lower castes, who have from time immemorial lived without instruction and are altogether indifferent to it. In addition to this general cause, Local Governments and local bodies have often been hard pressed for funds; the efforts of the educated classes are more readily directed towards English than towards primary education; and the officers of the Education department have not always realized the importance of placing the advance of primary education in the forefront of their endeavours. The Government of India has recently insisted that greater efforts must be made for the expansion and improvement of primary education, and has afforded assistance from Imperial revenues. Efforts have also been made of late years to popularize primary instruction, by simplifying the course of study and bringing it into closer relationship with the daily life and avocations of the people.

A comparatively small number of primary schools are now managed directly by the Government; most are administered by municipalities and District boards, or by private persons or bodies. Many of these private institutions are indigenous schools which have been brought to conform to the require- Management of primary schools.

ments of the Education department; others are schools of a more modern type started by native proprietors; others again belong to various missionary societies. In Bengal and Burma, where educational progress has proceeded on the lines of developing indigenous schools, the very large majority are under private management; in Bombay, where primary education owes its advancement to the local rates, municipal and District board schools greatly outnumber the private establishments. Madras, the United Provinces, and the Punjab stand in between, the former tending towards the Bengal and the two latter towards the Bombay system. Municipal and local board schools are required to conform to the general regulations of the Government with regard to equipment, curriculum, method of instruction, &c., and board schools are in general subject to the control of the Education department in matters of the first importance. Most of the private schools which come within the scope of the Education department receive a grant-in-aid from Provincial or Local funds; others conform to the departmental standards in the hope of qualifying for this aid, or of securing the privilege of receiving Government scholars and sending up their pupils for the Government scholarship and certificate examinations. Grants are given in aid of salaries, and for buildings, furniture, appliances, books, scholarships, and special needs. The Education Commission of 1882 recommended that salary grants should be given on the results-grant system, i.e. on the result of an individual examination of the pupils in the different classes. This system is still in general force, but some Provincial Governments use other methods in conjunction with it. Thus in Madras and Bombay the best schools are put on a fixed grant list, and in the Central Provinces fixed allowances are supplemented by results grants. The results-grant system was adopted in the first instance on the strength of European precedents; but it has now been finally condemned in England, while experience in India has proved that it is unsatisfactory in its influence on education and uncertain in its financial effect. The Government of India has recently directed that it should be replaced by more equitable tests of efficiency, depending on the number of scholars in attendance, the buildings provided for their accommodation, the circumstances of the locality, the qualifications of the teachers, the nature of the instruction given, and the outlay from other sources. The Educational codes of the various Provinces are now being revised so as to embody this important reform.

Grant-in-aid system.

The type of primary school varies from the primitive village *pāthshāla* or *maktab* to the modern institutions in which the pupils are educated in accordance with approved European methods. The Bombay local rates schools are in general better built, equipped, and managed than the Bengal indigenous institutions. Many of the latter have not got much beyond their primitive condition, and a quarter of their pupils are little children who cannot read or write. Efforts are now being made to improve the character of the instruction imparted. The Bombay schools are also more expensive. The average cost of educating a child in a Bombay primary school is Rs. 6-6-4 a year, while in Bengal it is only Rs. 2-12-0 and in Burma Rs. 2-12-9. Boarding schools are very rare, save in the case of missionary schools and some institutions in the large towns. The day's work is in general about five or six hours, and the times of study are altered to suit the seasons. About one-tenth of the boys in the primary stage of education receive instruction in the primary classes of secondary schools, forming nearly two-thirds of the boys in such schools. The system varies in different Provinces. In Bombay the complete course of vernacular education is given in the primary schools, and a boy who is to receive an English education first goes through the lower classes of a primary school and is then transferred to an English school. In Bengal, on the other hand, each class of school is generally complete in itself, and the nature of the instruction in the lower classes has hitherto depended on the character of the institution. The school career of a child begins, as a rule, at about five years of age, and the primary course, which for the great majority includes all the education they receive, lasts for five years. It is divided into a lower and an upper stage, but many schools and pupils do not go beyond the lower course. General characteristics of primary schools.

The course of instruction in a primary school is simple. In general the maximum which it attempts is to teach the child to read and write his own language; to enable him to do easy sums and understand simple forms of native accounts and the village land-record papers; and to give him a rudimentary knowledge of common objects, geography, agriculture, sanitation, and the history of India. Madras and Bombay may be taken to illustrate the nature of this instruction. In Madras the course extends from the alphabet and counting to the compulsory subjects of reading, recitation, grammar, writing, spelling, and European and native arithmetic. The following additional subjects are voluntary: kindergarten occupations, elementary The course of teaching in primary schools.

science, a second language (either English or an Indian vernacular), drawing, geography, singing, hygiene, history of India, agriculture, mensuration, and the elementary subjects of the technical course. The principle is to require few compulsory subjects and to offer a selection of voluntary subjects suitable to all classes of schools. In the infant classes in the Bombay schools the subjects are the alphabet and numerals; forms, colours, and familiar objects; recitation and singing in unison; and infant drill, exercises, and games. In the seventh or highest stage, which terminates vernacular education in this Presidency, the subjects are arithmetic, the first book of Euclid, native accounts, a reading book, grammar, and etymology, the reading of manuscript, writing, history and government of India, geography, and hygiene, which forms the end of a series of science and object lessons. A graduated course of manual training or elementary science may be substituted for this course.

The general complaint has been made against the Indian system of primary education that it does not serve to train the faculties or assist the pupils in their future life. There is said to be too much unintelligent learning by rote, and too much grammar and complicated English arithmetic. Some improvement has been made in recent years in obedience to instructions issued by the Government of India in 1897. Almost all Provinces have introduced kindergarten methods and object lessons, and have framed courses intended to train the faculties of children. The course which the Government of Bengal is now endeavouring to introduce begins with a simple kindergarten system in which objects familiar in the daily life of the children are used, and object lessons are freely employed throughout as a medium of instruction and training. In each subject the child is led from the more to the less familiar; thus the study of geography begins with maps of the school and compound and of the village. It is an illustration of the magnitude of educational problems in India that 50,000 teachers in Bengal have to be instructed in the new methods.

Primary school teachers.

Without good teachers the best of regulations and courses will fail. The three million 'public' primary pupils of India require an army of teachers for their instruction, and the supply of an adequate number of properly qualified persons is perhaps the greatest difficulty of the educational problem. Hitherto the chief defects have been insufficient pay and training. The pay of primary school teachers varies ordinarily from about Rs. 18 a month in the Bombay Presidency to Rs. 6 or 10 in the United Provinces, and Rs. 5 or 6 in Bengal, where the

monthly salary of the *gurū* is supplemented by fees and presents in cash or grain. There are no fixed fees: they are a matter of arrangement between the teacher and his pupils or their parents. It has now been recognized that the enhancement of the pay of primary teachers in Provinces where it is unduly low has a special claim on the increased expenditure from Imperial revenues which is being devoted to educational objects. Considerable improvement has also been effected of recent years in the training of primary teachers, as will be mentioned in a later section of this chapter.

Rural schools.

The account given above applies to primary education in general, which is of course most developed in towns. The rural schools require separate notice. They present a problem the magnitude and difficulty of which is exceeded only by its importance. The mass of the peasantry are still utterly illiterate. In Upper India one frequently comes across villages with only one or two men who can sign their names; in Bengal and in Southern and Western India matters are better, but everywhere ignorance is a prominent characteristic of the cultivating class. This ignorance has become a more serious disability and a greater danger than it was in earlier days; for the railways have revolutionized the conditions of village life, have brought the cultivator into contact with the commercial world, and have given to the produce of his lands an easily realizable monetary value which it never before possessed. He is thus beset by new temptations to extravagance, and called on to deal with shrewd men with whom it is not possible for him to transact business on equal terms. From another point of view the ignorance of the villager is a great obstacle to the amelioration of his position. Immense pains have been taken to introduce improved agricultural methods and to remove the grossly insanitary conditions which still prevail in the majority of Indian villages. It is difficult for such schemes to achieve wide and lasting success when applied to a population too ignorant to understand their meaning or appreciate their value. The Government has not failed to perceive the extreme importance of the problem, and ever since the days of Mr. Thomason it has been the subject of repeated investigation and experiment. During recent years considerable improvements have been made in the character of the village schools, and the subjects and methods of instruction have been brought into greater harmony with the conditions and requirements of peasant life. The subject has received special attention in Bombay, the Central Provinces, and the Punjab. Side by side

with the 'superior' schools, there exist in Bombay special schools which teach five simpler standards in place of the ordinary seven, the whole course being designed to occupy the child from the age of about six to twelve. In the infant class the rural schools give the same course of instruction as the 'superior' schools; thenceforward they devote themselves to the three R's, while particular attention is paid to native accounts, simple forms of agreement, the plants and animals of the locality, its agricultural products, and the elements of a knowledge of sanitation. The reform of village schools in the Central Provinces began in the year 1893–4, but was not very successful until the whole system was remodelled in 1899. The rural school contains five classes, and the age of the pupils ranges from five to fourteen. School is held in the morning and afternoon, but the bulk of the pupils attend only in the morning and are therefore called 'half-timers.' The few 'whole-timers' consist as a rule of the sons of the landlord, the village trader, the *patwāri* (accountant), and the schoolmaster himself. The 'half-timers' are taught reading, writing, arithmetic, kindergarten, drawing, geography, agriculture, simple facts about physical science, and to understand the land records of the village. The General Readers provide the lessons in agriculture and science, and the only other books required are a simple Geography and an Arithmetic. Instruction is made as practical as possible: thus the readings are accompanied by explanations and illustrated by object lessons; in the writing lessons the boys are taught to write imaginary letters; the course in arithmetic includes the ordinary native methods of notation and accounts; and the *patwāri* takes the boys to the field and explains the papers on the spot[1]. The Punjab has, since 1886, had *zamīndāri* schools in which, to prevent boys from getting out of touch with field occupations, it was provided that they should attend daily for one short period, either in the morning or in the evening. This rule is however frequently infringed, native arithmetic has been found to be generally neglected, and the agricultural lessons are not practically illustrated. It is in contemplation to abandon the *zamīndāri* schools, and to deal with rural schools under a system which will not be so ambitious as the present scheme but will retain its useful features.

Secondary education.

There are three classes of secondary schools—the vernacular and English middle schools, and the high schools.

[1] For an account of the rural schools in the Central Provinces see the first volume of the *Occasional Reports of the Director-General of Education*.

The vernacular middle school course is a prolongation of the primary course, and completes the instruction of those who do not aspire to an English education. In most Provinces the course lasts for three years, and should be completed at about the age of thirteen. It is less popular, and affords a less ready opening for employment, than the English course, and in 1901–2 only 27·3 per cent. of the secondary school pupils were in vernacular middle schools. In Madras the compulsory subjects are a vernacular language, arithmetic, geography, and the history of India. The following subjects are voluntary: elementary science, a vernacular or classical language or English, the history of England, geometry and algebra, and any subject of the Madras technical course. The Government of India has recently issued instructions with the object of preventing the undue sacrifice of the vernaculars to English. Vernacular middle schools.

The spread of English education accounts for most of the 202 per cent. increase in pupils in the secondary stage which took place between 1870–1 and 1901–2. At the end of the latter year nearly 430,000 pupils in boys' schools were learning English, the proportion to population being highest in Madras (where English is more commonly spoken than in other Provinces) and lowest in the United Provinces. English schools.

Government takes a somewhat larger share, and municipalities and local boards a much smaller share, in the conduct of English than of primary schools, but in all the large Provinces the great majority of English schools are under private management. This preponderance of private institutions conforms to the principle laid down by the Education Commission of 1882, in accordance with the declaration of the dispatch of 1854, that 'it is ordinarily expedient to provide the means of secondary education only where adequate local co-operation is forthcoming; and that therefore, in all ordinary cases, secondary schools for instruction in English be hereafter established by the state preferably on the policy of grants-in-aid.' It is, however, now recognized that to maintain a satisfactory level of efficiency a model secondary school under direct Government management is needed for each District. Private secondary schools may not be admitted to grants-in-aid unless they supply a real educational want and provide due guarantees for stability and efficient management.

The English secondary school stage is divided into middle and high school sections, which really form portions of the same course. The two courses comprise five or six classes; and if a year were spent in each class, in addition to five years in the The English secondary school stage.

primary school, the English school education should ordinarily be completed by the time the pupil attained the age of sixteen. Clever pupils are often pushed through more quickly, and sometimes matriculate at a University at the early age of twelve or thirteen. This hurrying through the course tends to injure the physique and interfere with the mental training of the student, and the Indian Universities Commission of 1902 recommended that a minimum age-limit of fifteen should be fixed for matriculation.

High school course. Matriculation examination.

In English secondary schools the main course has hitherto led up to the matriculation or entrance examination of one or other of the Universities. There are other courses of a more practical character leading up to different examinations, but they have not in the past succeeded in attracting any considerable proportion of the students. A purely literary education has been more popular among both parents and students, as being in itself more attractive to them and as affording a better opening for remunerative employment. The matriculation has generally been accepted as a qualifying test by Government and private employers as well as by the Universities, and has been regarded as the common goal of the school career. In 1901–2 nearly 23,000 candidates presented themselves for the matriculation examination of the several Universities. The general subjects are English; an Oriental or European classical language, or an Indian or European vernacular; elementary mathematics; and history and geography. Some Universities include elementary science in the course. The influence of this examination on school teaching is said not to have been in all respects beneficial. It is alleged that sound methods of training are neglected, because the attention of teachers and scholars is often concentrated on the cramming of material for use in the examination. Some matriculates have been found so deficient in knowledge of English that they cannot follow college lectures, and at the same time they may be unable to write their own language easily and idiomatically. The number of candidates is so great that it is difficult to devise an examination which shall form an adequate test of intelligent study and at the same time maintain a reasonably even standard.

School final examination.

The 'school final examinations,' which are alternative to matriculation, arose from the recommendations of the Education Commission of 1882. That Commission found the high schools used almost exclusively as preparatory schools for the University, and the course of instruction dominated by the

University standard. They reported that there was a real need for some modern course which would fit boys for industrial or commercial pursuits, and pointed out that the matriculation did not serve this purpose, but was intended to ascertain whether the candidate was ripe for University studies. They thought that bifurcation might properly take place within two years of the end of the secondary course, and recommended that in the upper classes of high schools there should be two types of instruction, one leading to matriculation, and the other of a more practical character, intended to fit boys for commercial and non-literary pursuits. The conclusions of the Commission were accepted by the Government, but the progress made in giving effect to them has been slow. Pupils were reluctant to abandon the hope of a University career, with its many attendant advantages, two years before the end of their school life. Of recent years, however, the advantages of a practical training have increased considerably as compared with those to be derived from an exclusively literary education, and a greater degree of success has attended the efforts to impart a more modern character to the Indian high schools. In 1901–2 the examinations alternating with the matriculation were the upper secondary examination in Madras, the school final examination in Bombay and the United Provinces, the science entrance examination of the Punjab University, and the Punjab clerical and commerce examination. Classes have recently been established in a few Bengal high schools leading up to the civil engineering college, and to commerce and the industries, but no examination had been held in the new courses of study up to the year 1901–2. In Madras the examination is conducted by the Government and in the other Provinces by the University. The Allahābād and the Punjab science examinations admit to the University; the others do not. These examinations replace the matriculation as a qualification for Government service in Bombay, while in Madras, the United Provinces, and the Punjab they form an alternative qualification. The monopoly accorded in this respect to the Bombay examination has rendered it much more popular than the corresponding tests in other Provinces. In 1901–2, while, as already stated, nearly 23,000 candidates presented themselves for matriculation, the number of candidates for the various alternative examinations was less than 2,000, of whom nearly 1,200 belonged to Bombay. The general question of the school final examinations in their relation to Government and other employment, and to the Universities, is at present under con-

sideration. There are three compulsory subjects for the Bombay school final examination, namely, English, a second language, and mathematics; and a list of ten optional subjects, including agriculture, drawing, and manual training, and a further course in English, from which the candidate must choose two and may not choose more than three subjects. The school final examination in the United Provinces differs from the matriculation chiefly in prescribing five optional subjects of a practical character, of which the candidate must take at least one.

Collegiate education. Establishment of Universities.

There are five Universities in British India, situated in Calcutta, Madras, Bombay, Allahābād, and Lahore. The first three were founded in 1857 on the model of the University of London, and their incorporation was one of the immediate results of the dispatch of 1854. But, as has already been shown, Indian collegiate education dates back many years before the foundation of the Universities. During the first half of the nineteenth century a number of colleges were opened in various parts of India by the Government, by missionary societies, and by educated natives associated together for the purpose. The first Government colleges were designed for the cultivation of the Oriental classics; but as the advantages of Western education became recognized, the Oriental aspect of collegiate education sank into the background, and colleges were founded and maintained for the purpose of giving an English education. The various Government and aided colleges were under the guidance of semi-official Councils or Committees of Education, who were, prior to 1854, entrusted with the general control of public instruction in the three Presidencies. The District high schools were connected with the colleges by a system of scholarships, and the students found their encouragement and reward in the Government and other employment which was opened to them by a college career. The Punjab (formerly Lahore) University College was incorporated as the University of the Punjab in 1882. This college had been established 'in part fulfilment of the wishes of a large number of the chiefs, nobles, and influential classes of the Punjab,' and the University was instituted under similar influences. It differs from the other Universities in having an Oriental side, which has not hitherto been very successful. The University of Allahābād was established in 1887.

University government.

The government of each University is vested in a Chancellor, Vice-Chancellor, and Senate, and the regulations are subject to

Government sanction. The Governor-General is Chancellor of the Calcutta University; elsewhere the Chancellor is the head of the Government of the Province in which the University is situated. The original Senates were composed of Fellows specially qualified to advise on educational affairs. In course of time the number of Fellows[1] was unduly increased, and Fellowships were bestowed as a compliment on persons without special educational knowledge or experience. This practice has injured the good government of the Universities, and the Indian Universities Commission recommended a reduction in the size of the Senates and the restriction of membership to persons qualified to assist in the control of higher education. An Act (VIII of 1904) has recently been passed to carry out this and other recommendations of the Commission; and its adoption should materially increase the efficiency of the Universities, which will hereafter be bodies whose function it is to teach as well as to examine, and which will exercise a closer control over their affiliated colleges. They will also receive greater assistance from Government than has hitherto been the case. The executive management of University affairs lies in the hands of a Syndicate, consisting of the Vice-Chancellor and a small number of Fellows. The members of the Senate are distributed according to Faculties. In all the Universities, except Bombay, there are Boards of Studies whose principal duty is to recommend textbooks and courses of study.

Growth of higher education.

Higher education spread quickly under the impetus given by the foundation of the Universities. Colleges were multiplied, in some cases perhaps too rapidly, and the number of students continually increased. The progress is illustrated by the figures contained in the table at the end of this chapter. Colleges are classed as first or second grade, according as they prepare for the full degree examination or only up to an intermediate stage. In the latter case they are, for the most part, really high schools with college classes grafted on to them. In the year 1901–2 nearly 1,500 students passed the examinations for the degree of Bachelor of Arts or Science. It is sometimes said that the supply of graduates is in excess of the demand, and that their training is meagre and superficial. There is no

[1] Fellows are usually appointed by the Chancellor; but in Calcutta, Madras, and Bombay a certain number have of late years been elected by qualified graduates. The new legislation referred to allows of this procedure in Allahābād and Lahore also, and further permits of the election of some of the other Fellows by the Faculties.

reason to believe that the former allegation is well founded; with regard to the latter the Indian Universities Commission were not disposed to confirm the sweeping condemnation that has sometimes been passed on the University system. They found that many of the colleges command the services of able and devoted teachers, and that the students as a class are not wanting either in natural talent or in industry. At the same time they admitted that the acquirements of Indian graduates are in many cases inadequate and superficial. The defects in the system are mainly attributable to laxity in admitting colleges into the University system (which will be remedied by the legislation already referred to), want of adequate supervision, and faults in the methods of examination and courses of study.

Relations between the Universities and the colleges.

The colleges in India are too widely scattered to enable the Universities ever to become institutions similar in character to Oxford and Cambridge; but the Universities are already more than mere examining bodies, in so far as their students are in general drawn from institutions which have been expressly affiliated to them, and they exercise a control over the teaching in those institutions by setting the standards of examination and prescribing the courses of study. Beyond this they have hitherto exerted little or no influence in moulding the character and securing the efficiency of the colleges affiliated to them. Some of the larger colleges, whether managed by the Government, by missionary societies, or by native proprietors, are fine institutions, well housed and equipped, and with an adequate and well-qualified staff. From these the scale descends until at the bottom are to be found small collegiate classes attached to schools in remote country districts, where a few students are given some sort of instruction in the first portion of the University course. Under the recent legislation above referred to the Universities will in the future be able to do much to raise the standard of collegiate life. In granting and continuing the privilege of affiliation careful regard will be had to the government and stability of the institution, and to the capacity of its teaching staff, while particular attention will be paid to buildings, equipment, and the residence of students and teachers. Unfair competition with other colleges in the matter of fees will also be guarded against.

College life.

The majority of Indian undergraduates now live with their friends, or in lodgings, and visit college mainly to attend the prescribed lectures. The residential system is, however, gaining ground, and it is the policy of the Government to give it

every encouragement. The Muhammadan college at Alīgarh is the only Arts college which possesses a complete system of residence, discipline, and corporate life on the English model, but its great success has been facilitated by its being designed to serve a single community. In more general institutions caste and other difficulties are considerable, but these are being gradually overcome, and of late years the system of college hostels in which students board under supervision has been largely developed. In another direction, also, collegiate life is extending its influence outside the lecture room. Athletic sports, and college debating and literary societies, are growing in popularity and are leading to a closer and more friendly association between professors and students and among students themselves. Lecture hours in an Indian University are longer than in England, and it is said that fewer lectures and more tutorial assistance would improve the character of the instruction. The private 'coach' is almost unknown.

University courses.

All the Universities grant degrees in Arts and Law; all except Madras have separate Science schools; and all except Allahābād give degrees or diplomas in Medicine and Engineering. After matriculation an undergraduate wishing to take a degree in Arts or Science must, unless specially admitted as a private student, go through a four years' course at a college affiliated to the University. In the middle of the course an Intermediate or 'First Arts' examination is held[1]. In Calcutta the subjects for this examination are English, a second language, mathematics, physics, and chemistry; and candidates may also take up either logic, history, physiology, or sanitary science. Calcutta is the only University which has a separate pass and honours course for the degree of Bachelor of Arts, but in all Universities successful candidates are in general divided into classes. The Calcutta course may be taken to illustrate the character of the studies for the degree of B.A. It is divided into two alternatives, one of a more literary, and the other of a more scientific, character. The literary side includes English, philosophy, and either a classical language, history, or mathematics. The subjects of the science course are English, mathematics, and either physical science, botany, or geology. The degree of Master of Arts is given on the results of a further examination, and in some Universities after a fresh period of prescribed study. The choice of subjects includes languages, history, philosophy, mathematics, and physical or natural

[1] In Bombay an additional examination (styled the Previous examination) is held at the end of the first year.

science. In the older Universities the standard of this examination is severe and success in it is a guarantee of high attainments: in 1901–2 138 students took the degree of M.A., of whom 79 belonged to Bengal. The science course is of the same length as the course in arts, and candidates must in some cases pass a special intermediate examination before appearing for this degree. The Calcutta course for the degree of Bachelor of Science comprises English (a short essay on some scientific subject), statics and dynamics, physics and chemistry, and any two of the following subjects: physiology, botany, zoology, geology, hydrostatics, and astronomy. The Universities of Calcutta, Allahābād, and the Punjab prescribe a further course for the degree of Doctor of Science. Candidates for degrees in Law must in all Universities first graduate in Arts. The regulations regarding other professional courses vary, but it is the general rule that the student must pass the Arts Intermediate examination before beginning his technical studies. An annual Convocation is held at which degrees are conferred: successful candidates appear in their gowns and hoods, and the proceedings are conducted on the model of the ceremony in an English University. Before leaving the subject of collegiate education, it should be mentioned that a number of Indian students now proceed to England to continue their studies, chiefly at Cambridge, where some of them have won high places in the tripos lists. A large proportion, however, are content to read for the bar in London, where the examination is only professional and the standard not very severe.

Muhammadan education.

Education has made less progress among Muhammadans than in the Hindu portion of the population. If the total number of scholars in institutions of all kinds is considered, the comparison is not unfavourable to Muhammadans; but about one-fourth of the total number of Muhammadan pupils are taught in 'Korān schools' or other indigenous elementary institutions, where the children learn by rote and often do not understand what they repeat, and of the remainder a comparatively small proportion advance much beyond the primary stage. The proportion of the Muhammadan population receiving secondary education is only two-thirds of the proportion in the case of Hindus, and for collegiate education the ratio is as low as one-third. This is not, however, the case in all parts of India: in the United Provinces, for instance, Muhammadans take the first place in both branches of higher education. A number of social and political causes have contributed to the comparative backwardness of the Muhammadans in educational

matters. The principal scholastic cause is that 'the teaching of the mosque must precede the lessons of the school.' The religious books of the Muhammadans are written in their classical languages; and before the student is allowed to devote himself to secular instruction, he must often pass some years in going through a course of sacred learning. He is thus handicapped in the race with the young Hindu, whose one object is to attain an education which will fit him for an official or professional career. The Education Commission of 1882 proposed a differential treatment of the Muhammadan community in respect to education, which the Government of India found itself unable to approve. It declared that the way to success for Muhammadans lies in taking advantage, like other classes, of the facilities for higher instruction provided by the general educational system. This advice has been to some extent followed, and considerable efforts have been made by the more enlightened among the Muhammadans to foster the growth of education in their community. But progress is not yet satisfactory.

Female education.

Female education in India has to encounter peculiar difficulties. The demand for school instruction for girls is of recent origin, and social customs in regard to child-marriage and the seclusion of women of the well-to-do classes hinder its growth. The Government did not take up the subject until 1849, when Lord Dalhousie informed the Bengal Council of Education that henceforth its functions were to embrace female education, and the first girls' school recognized by Government was founded shortly afterwards by a committee of native gentlemen. The dispatch of 1854 directed that female education should receive the frank and cordial support of Government, as by 'this means a far greater proportional impulse is imparted to the educational and moral tone of the people than by the education of men.' The Education Commission of 1882 advised that female education should receive special encouragement and be treated with special liberality. The Government accepted this view; and state funds are more freely used, and state management more largely resorted to, for this object than is considered desirable in the case of the education of boys. The adoption of this attitude has resulted in a considerable development of the public instruction of girls, although it still lags far behind that of their brothers. In 1871 there were 134 secondary and 1,760 primary girls' schools; in 1901–2 the numbers were 461 and 5,628 respectively. There are also at present ten colleges for female undergraduates. Statistics regarding the number of girl

pupils cannot be pursued far back because in former times the number of girls studying in boys' schools was not shown. The percentage of girls in public institutions to girls of school-going age was 1·6 in 1886–7, 2·1 in 1896–7, and 2·2 in 1901–2. At the end of that year there were about 393,000 female pupils in public institutions, of whom nearly one-half were in mixed boys' and girls' schools. The different feelings of the several Provinces with regard to co-education is strikingly shown by the fact that in Burma no less than 74 per cent. of the girls are to be found in boys' schools, and in Madras 52 per cent., whereas in the United Provinces the proportion falls to 14 per cent., and in the Punjab to 1 per cent. The proportion of girls to boys under instruction in all India was about 1 to $9\frac{1}{4}$, being highest in Madras and lowest in the United Provinces. For the general native population the proportion is even less than that shown above, because a large number of female students are Europeans, Eurasians, or Native Christians. More schools, more and better-trained female teachers, and an adequate female inspecting agency are pressing needs to which special attention is being devoted. The character of the instruction given in girls' schools is similar to that in institutions for boys, but the standards are in some respects lower and special subjects are introduced. Thus the Bombay course for girls includes household accounts, domestic economy, and needlework. Much assistance has been given to the cause of female education by mission schools and mission classes for home teaching.

Education of low-caste children.

The promotion of education among children of the lowest castes, both male and female, is a matter of peculiar difficulty. These castes were entirely illiterate under native rule; a change in this respect was looked on with jealousy by the higher castes, who considered that knowledge ought to be their monopoly; and the presence of low-caste children in a common school was objected to on account of the physical contamination supposed to be involved by caste rules.

'In some Provinces, and among certain classes, the degraded castes are allowed to sit either in a veranda or on a lower section of the floor than the rest, and to deposit their books and exercises on the floor instead of handing them to the master; but for the most part the boycotting is universal, and the master as well as the pupils and their parents have no inclination to relax the rule. Special schools are therefore maintained where the excluded classes are of numerical importance, and a great deal has been done in this way by Christian missionaries, who, especially in Madras, have made a special

point of raising the status of what are conventionally, though incorrectly, termed the outcaste population [1].'

Of late years, however, much of this old-time prejudice has disappeared, and nowadays the attendance of low-caste children in public schools is becoming more readily accepted.

Education of Europeans and Eurasians.

The special importance attaching to the education of the youth of the domiciled European and Eurasian community has long been recognized by Government. Shortly after the Mutiny Lord Canning pointed out how the members of this community would, if neglected, become profitless, unmanageable, and a glaring reproach to the Government, while if cared for betimes they might prove a source of strength to British rule and of usefulness to India. Since then the problem has grown with the increase of the Eurasian population and the more common employment of Europeans in India. The great development of railways, and the establishment of large industrial concerns, such as the cotton mills of Bombay, the jute mills around Calcutta, and the tea plantations in various parts of the country, have called to India an ever-increasing number of European employés, many of whom marry and settle in the country and have to provide education and employment for their children. At the same time the young European or Eurasian educated in India finds it increasingly difficult to compete on even terms with the native of the country. Since the spread of secondary education he can claim no monopoly of Western knowledge, while his social habits and traditions make it difficult for him to live on a salary which an educated native would find sufficient. More intimate knowledge of the languages, character, and customs of the people gives a further advantage to the native in many occupations, an advantage which has been exaggerated owing to neglect on the part of Eurasians and domiciled Europeans to acquire proficiency in the vernaculars. At the same time there are many employments for which a well-educated young Eurasian or European is specially suited and to which he can obtain a ready entrance. Those engineering and industrial undertakings which engage so many recruits in England are to some, and could be to a greater, extent supplied in India. There is also a considerable demand for European and Eurasian assistance in certain branches of the public service, and in the business houses and retail concerns of the Presidency towns and other large centres of commerce and administration. While there is thus no lack of useful em-

[1] *Report on Material and Moral Progress of India*, 1891–2 (J. A. Baines), p. 393.

ployment for the well-educated European or Eurasian, his self-maintenance depends entirely on his education. An uneducated European cannot support himself by working as a day-labourer or adopting the avocation of a peasant: he almost of necessity becomes an idle and mischievous member of the community. This gives the state a special interest in the education of these classes, while the fact that the English ancestor of the youth was brought to India to do work for which a European was required gives him a further claim to consideration. The poverty and other disadvantages under which the domiciled European and Eurasian classes suffer make it difficult or impossible for them to provide adequate instruction for their children, and it is therefore essential that the state should come to their assistance. It was long before this was fully recognized, and Lord Canning's warning produced little effect. Some aid was given to the various schools founded and maintained by religious societies or private persons; but it was left to Lord Lytton's Government, influenced largely by the zeal and devotion of Archdeacon Baly, to take up the question in a comprehensive and systematic manner. An inquiry was instituted which showed that a large proportion of the European and Eurasian children were growing up in a condition of absolute ignorance. The Government of India determined that this state of affairs must be stopped, and the result was the introduction, in 1881, of the Bengal code of regulations for European schools in Northern and Central India. This code was based on English and Scottish models, altered and extended to meet the special needs which existed in India. The main principle was the encouragement of all classes of European schools by means of liberal grants-in-aid based on the attendance and proficiency of the students. At the same time arrangements were made for special grants to schools in localities containing a small or poor European population, to free schools and orphanages in aid of their boarding charges, and for the boarding of children whose parents resided in places where there was no school. General courses of instruction were laid down, and primary, middle, and high school standards were fixed for the purpose of the grants. To improve the quality of the instruction, which was in many cases unsatisfactory, a system of certificated pupil-teachers was introduced. In Madras and Bombay more adequate arrangements had been made for the instruction of Europeans, and the Bengal code was not applied to those Provinces, though the Local Governments made modifications in their grant-in-aid rules in the direction of the

Bengal system. The Bengal code was revised in 1895; and among other changes the system of results grants, which involved an undue amount of examination of individuals, was abolished in favour of an attendance grant awarded to every school that was declared efficient on the verdict of the Inspector. The arrangements introduced under these orders have had a marked effect in improving the education of the domiciled European and Eurasian community, and the number of scholars belonging to this class increased from about 23,500 in 1886–7 to more than 31,000 in 1901–2. Experience has, however, shown considerable defects in the working of the system. It has failed to meet the case of places in which there is a small or poor population unable to make arrangements for the schooling of their children even when assisted by the Government. The character of the teaching has not always been satisfactory, and the arrangements for certificated, licensed, and pupil teachers have failed to secure an adequate supply of well-qualified instructors. Insufficient attention has also been paid to the important subject of vernacular languages. Measures have been taken to remedy these defects; and a committee of experts was appointed in March, 1902, to draw up a fresh code, based on the Bengal model, which is to apply to all Provinces of India. An Inspector in each Province is specially charged with the duty of inspecting European schools; a training college for teachers in these schools is to be established, while stipends are to be provided for the students under training; and the systems, both of grants-in-aid and of scholarships, are being revised on a more liberal basis.

Chiefs' Colleges. Several Chiefs' Colleges have been established during the last thirty years, of which the most important are at Ajmer, Rājkot, and Lahore, where some of the features of the English public school system have been reproduced, with the object of fitting young chiefs and nobles, physically, morally, and intellectually, for the responsibilities that lie before them. Steps have recently been taken to bring these institutions to a higher level of efficiency, and the reforms in course of execution will, it is hoped, result in giving a great impetus to the cause of education among the Indian nobility.

Technical education. Until comparatively recent times the instruction in all grades of Indian schools was almost entirely literary in its character. In describing the general courses of study allusion has been made to the introduction of more modern systems of practical training, beginning with kindergarten classes for little children and extending to the scientific, commercial, and industrial

courses which have been opened in some of the high schools. Special institutions have also been established for various branches of technical training, as, for instance, industrial schools; schools of art; commercial and technical institutions; and colleges for the study of engineering, agriculture, medicine, and law.

Industrial schools.

At the bottom of the scale come the industrial schools. Under the native industrial system the child learns his hereditary craft from his father or is apprenticed to a *mistri*, or master-craftsman, who is often a relative of the pupil. There is no regular fee, but a small present is often paid to the owner or foreman of the shop, and in some native trades a religious ceremony may take place at the time of apprenticeship. The child begins his work at a very early age; at first he is expected to undertake the menial duties of the shop and is put to cleaning the tools; later he begins to perform the simplest operations of the trade. There is little definite instruction, but the boy gradually acquires skill by handling the tools and watching the workmen at their task. As soon as he has made a little progress, the apprentice is granted a small wage which is gradually increased as he becomes more useful; and when his training is finished, he either goes out into the world or secures a place on the permanent roll of his master's shop. To the poor artisan the arrangement has this great advantage, that at a very early age the child earns his livelihood and ceases to be a burden on his parents. In former days the system answered well enough for the rude village industries which satisfied the needs of the bulk of the population, and it also succeeded in maintaining a class of workmen who dealt in metals and textile fabrics with such sense of form and colour that their work has challenged comparison with the most artistic products of the West. It has not, however, enabled the Indian artisans to keep abreast with modern industrial development. Imported articles have to a considerable extent supplanted the products of home industry, the quality of native work has in many cases deteriorated, and the workman has not taken due advantage of the wide openings afforded to him by advancing civilization and trade. The efforts made to assist him have not as yet been attended with a great measure of success. A committee appointed to investigate the subject in March, 1902, prepared a list of 123 industrial institutions, most of which are of recent origin. A few of the more important are managed by Government, some have been established by municipalities and local boards, and others are maintained by

missionary societies or private benefactors. Many of the mission and private schools are aided by grants from public funds awarded on the results of industrial tests. This system has been most fully developed in the Madras Presidency, where a series of examinations—elementary, intermediate, and advanced—is held for 'the encouragement of scientific and technical instruction, with special reference to manufactures and industries, and generally to the necessities of the practical side of life; and for testing the qualifications of persons desirous of becoming teachers of technical subjects, engineers, designers, agriculturists, commercial employés, managers of industrial establishments, employés under Government, &c.[1]' The subjects most commonly taught in the industrial schools are carpentry, smith's work, shoemaking, and tailoring. Instruction has been too much confined to these branches irrespective of the character of the local demand for craftsmen, and much of the training has thus been wasted. Less commonly taught are metal-work, weaving, carpet-making, masonry, candle-making, cane-work, gardening, and various other trades. Instruction is usually by the class system, in which the teacher causes a number of pupils to execute exercises and, when more proficient, to make whole articles. In some cases the method approaches an apprenticeship system: the teacher himself works at the trade and the articles made are sold. In the smaller schools, such as those maintained in the interior by local boards, the instruction is not always much superior to that given in the shops. The Victoria Jubilee Technical Institute in Bombay is a more advanced institution for the training of engineers, mechanicians, and craftsmen. The principal subjects of instruction are mechanical engineering, cotton manufacture, metal-working, enamelling, aluminium-working, and locomotive-driving. Some of the missionary institutions have been fairly successful in their training, and their orphanages have done good work in helping destitute children to the means of livelihood. Difficulty has been experienced in inducing pupils to attend industrial schools. This is perhaps due in part to defects in the schools themselves, but the main cause is no doubt the disinclination of parents to forgo the pecuniary advantages of the native apprenticeship system. Where literary instruction is combined with technical training, boys who do not belong to the artisan class join the school in order to get cheaper teaching than can be obtained elsewhere. On leaving they do not seek to follow the trade they have been

1 *Review of the Progress of Education in India*, 1892–3 to 1896–7.

taught, but join the army of clerks. The grant of stipends has been abused in a similar fashion, and steps are now being taken to confine admission to industrial schools to lads who are known by their caste or hereditary occupation to be likely to practise in after life the handicrafts taught to them. Schools for engineering and surveying, the training in which affords a prospect of Government employment, and which in some cases, as in Bengal, are connected with the engineering colleges, have had a greater success than institutions for teaching artisans. The question of improving the system of industrial education has lately been under the consideration of the Government, and provision has already been made for sending a certain number of advanced students to obtain technical training in Europe or America.

Schools of art.

Government schools of art have been established at Calcutta, Madras, Bombay, and Lahore. They are of the nature of institutions for the study of 'arts and crafts' rather than fine art studios. The artistic genius of India has found expression chiefly in architecture and the production of articles of beauty for domestic use; and the most important function of the art school is to maintain, restore, and improve this application of Oriental art to industry and manufactures. The cultivation of the fine arts does, however, find a place in the schools, and they have, moreover, had considerable success in training draftsmen for employment as teachers and in Government and other offices. The Madras school was opened in 1850 as a private institution 'with the object of improving the taste of the native public as regards beauty of form and finish in the articles in daily use among them.' It comprises two departments: the artistic, in which drawing is taught in all its branches; and the industrial, in which instruction is given in metal-work, the art of the silversmith, the jeweller's craft, cabinet-making, carpet-weaving, cotton-weaving, pottery manufacture, engraving, and modelling. The Bombay school of art began with a drawing-class in 1857, and now gives instruction in drawing, painting, sculpture, and iron-work. Its pupils have been entrusted with much of the decorative work which adorns the city of Bombay. Attached to the art school are the Reay workshops, where the principal crafts taught are gold and silver work, enamelling, carpet-weaving, wood-carving, and ornamental copper, brass, and iron-work. In Bengal there is less indigenous art than in other parts of India, and the work in the Calcutta school is not so distinctively Oriental as in Madras and Bombay. The course is divided into two parts. The

first affords a systematic training for general draftsmen, elementary drawing-masters, industrial art workmen and designers; in addition to free-hand drawing and modelling, it includes perspective and architectural drawing, painting, design, wood-engraving, and lithography. The second part is intended for painters of various classes and sculptors. The various art schools have not always consistently followed their true functions, and have thus missed part of their usefulness. They have nevertheless turned out numbers of craftsmen who obtain employment in many and varied capacities, and have done something to arrest the decay of Indian art which resulted from the out-turn of large quantities of inferior work for the European market and from the deterioration of native taste by the introduction of European goods of the cheaper kinds. Under recent orders the specialization of a limited number of arts and art industries in these schools is to be preferred to the simultaneous teaching of a large number, and free admission and scholarships are to be restricted.

Engineering colleges.

There are colleges of engineering in Madras, Bombay, Bengal, and the United Provinces. They train students for the various branches of the Public Works Department, as also for employment under municipalities and local boards, and to a less but increasing extent in private industrial concerns, such as jute and cotton mills, river and sea-going steamship companies, coal-mines, and electrical firms. The colleges at Roorkee in the United Provinces and at Sibpur near Calcutta are the largest. An account of the courses of study at Roorkee, where students live in residential buildings provided by the college, has been given in chapter x of this volume. The Sibpur college possesses fine buildings situated in large grounds on the banks of the Hooghly. It has well-equipped laboratories and workshops, and a large staff of European professors. The steam, oil, and gas engines and electric plant are worked by the students, and form an important part of the teaching apparatus. The college consists of three sections: the engineer department, which prepares students for the University Engineering degree and for the higher branches of the Public Works Department; the apprentice department, for training foreman-mechanics and overseers; and an artisan class. The engineering course lasts for five years, and is followed by a further year of practical work. The college students may be seen in all stages of training—in one place hammering wooden blocks with mallets and fashioning pieces of lead as an introduction to the smith's craft; in another

studying geodesy or the integral calculus. In early days the well-to-do classes disliked their children being set to manual work; but the excellent openings offered by an engineering training have to a large extent overcome this prejudice, and at Sibpur European, Eurasian, and native boys all work together.

Agricultural and veterinary colleges and schools.

Agriculture forms one of the subjects of instruction in a number of the industrial schools; and agricultural colleges, or sections of colleges, have been established in Madras, Bombay, the United Provinces, and the Central Provinces. These collegiate institutions have not, however, as yet found much favour in the eyes of the landholding class, and are chiefly used as an avenue for entrance into Government service. In Bengal there were formerly agricultural classes at Sibpur near Calcutta; but these are now being replaced by a central agricultural college for the whole of India, provided with an agricultural research institute, and an experimental cultivation and cattle-breeding farm, at Pūsa in the Darbhangā District of Bihār. This college is to give instruction of a much more advanced character than is available at those now existing, and students from the latter will be encouraged to carry on their studies on a higher plane at Pūsa.

The Universities Commission found the equipment of some of the agricultural colleges in need of improvement; and the Government of India has suggested the establishment of special schools for the sons of landholders, in which the course should include practical training in subjects such as agriculture, land-surveying, and farm book-keeping. Veterinary colleges and schools have been opened in several parts of India, and have done good work in training students as veterinary assistants for work under the Government or local boards. A number of these assistants (*sālutris*) were sent to South Africa and China during the recent campaigns, and a few have found employment in British Protectorates.

Commercial education.

Until recent times there was little demand for instruction in the subjects which form a training for a commercial career, and little attention was paid to them in Indian colleges and schools. This condition of affairs is undergoing change in the large centres of commerce and industry. In Bombay the development has been rapid, and the new demand has been met by the establishment of several special institutions, the most important of which is the Byramjī Jījībhoy Pārsī commercial school. The Bombay Education department has recognized that the subject must now receive careful attention in secondary schools. In other places also commercial classes

have been opened: thus, the Reid Christian College at Lucknow has a 'business' department in which shorthand and typewriting are taught. The Allahābād school final examination includes book-keeping and political economy among its optional subjects. In the clerical and commercial division of the Punjab school final examination the compulsory subjects are English, dictation, and caligraphy, précis writing and correspondence, general and commercial geography, book-keeping, and commercial arithmetic. Urdū, the native system of accounts, and shorthand writing are optional subjects. The new Bengal examination leading up to commerce and the industries is less specialized. Commercial subjects are included in the Madras technical examinations. The examinations of the London Chamber of Commerce, which have been held in Bombay, are recognized in the code for European schools.

Medical colleges and schools. The instruction given for the medical profession has been perhaps the most successful branch of technical education. The natives of India show considerable aptitude for medicine; many of them have attained a creditable degree of proficiency, and some have gained distinction in the profession. Medical instruction is given in the Government colleges at Calcutta, Madras, Bombay, and Lahore, and in twenty-two Government medical schools. The Calcutta and Madras colleges were founded in 1835 for the training of subordinate medical officers, who were urgently needed as soon as the Government turned its attention to supplying medical relief to the general population. The Bombay and Lahore colleges were founded in 1845 and 1860. The early pupils of the Calcutta college received stipends to support them during the period of training, and a first batch of four entered the Government service in 1838. At first there was some prejudice against European medical methods, and especially against the practice of dissection, but these difficulties were successfully overcome. The medical schools were founded later, mainly for the purpose of training for the public service officers (Hospital Assistants) of a lower standard than the Assistant Surgeons educated in the colleges. The four Bengal schools were established in 1873–5. In 1901–2 about 4,200 pupils were under training in all medical colleges and schools. The colleges prepare mainly for the University degrees which qualify for employment as an Assistant Surgeon; they also train classes of military pupils. The length of the full course is in general five years and it includes preliminary scientific

and professional training. The colleges are attached to large hospitals in which clinical instruction is given, the physicians and surgeons of these hospitals being the college professors. The course in the medical schools is shorter and less advanced, and instruction is given partly in the vernacular. On leaving college or school a large proportion of the medical students are employed in hospitals and dispensaries and in the other public capacities described in chapter xiv. Others take up private practice, in which they have been increasingly successful; while others again obtain posts under private employers of labour, such as managers of tea gardens.

Legal instruction.

The system of legal instruction varies in the different Provinces. In Madras, Bombay, and Lahore there are centralized law schools, while in Bengal and the United Provinces law classes are attached to a number of Arts colleges. There are separate courses of instruction for students preparing for ordinary pleadership, and for those reading for the University examinations or the higher native bar. Neither of the existing systems has worked well. The students are said to attend lectures merely to secure the certificate required for admission to the examinations, and afterwards to pick up what knowledge they can from textbooks. The law libraries are generally poor, and the teaching, especially in the classes attached to Arts colleges, is inadequate. The Universities Commission advised that the question of creating or maintaining and improving good central schools of law should be taken up at each of the Universities. Natives of India have a natural talent for legal subjects, and notwithstanding the defects in the system of instruction the local bar has produced many eminent lawyers.

Normal colleges and schools.

The provision of an adequate training for the army of teachers required for the instruction of several million scholars is one of the most difficult of Indian educational problems. The dispatch of 1854 referred to the deficiency of qualified schoolmasters and the imperfect methods of teaching which prevailed, and directed the establishment of training schools and classes for masters in each Presidency. The Education Commission of 1882 laid particular stress on the importance of these instructions, and recommended that all Government teachers in secondary schools should be required to pass a test in the principles and practice of teaching. It has not yet been possible to work up to this standard, but in all Provinces efforts are being made, with varying success, to train teachers for schools.

In the case of primary teachers and the lower masters of secondary schools the courses of study and the examinations are organized by the Local Governments, and central and District schools are maintained for their instruction by the Government, and in some cases by local boards and missionary societies. The result of the training given in these schools has been on the whole satisfactory. Stipends are frequently given to the pupils, who then bind themselves to teach for a specified period. The courses include general and technical subjects and practical training. The total number of schools for male teachers amounted in 1901–2 to about 110, and the number of students to nearly 4,400. On the surface these figures show practically no advance on the statistics of 1871, but they represent a different class of instruction. Many of the schools included in the 1871 list were not normal schools in the true sense of the word, but were directed mainly to the general education of the ill-taught masters of the smaller schools. Institutions of this nature have become less necessary with the advance of vernacular education. They still exist in Madras, Bengal, and Assam, but have been excluded from the figures given above. The schools for female teachers have increased greatly in number during the same period. In 1901–2 there were about 50 schools, containing about 1,250 pupils. Many of the female normal schools are maintained by missionaries, and in Madras the majority of the students are native Christians.

The professional teaching of head masters and other principal masters of secondary schools and of assistant professors for colleges has received less attention than the normal training of lower grade teachers. A few institutions have been established for this more advanced instruction, the best example of which is the Teachers' College at Madras. The students in this institution are divided into senior and junior. The seniors are graduates of the Madras University and train for its degree of Licentiate in Teaching. The juniors must have passed the Intermediate or matriculation examination of the University, and are subjected to a Government test at the end of the course. Each student signs an agreement by which he binds himself to serve in a Government or aided school for three years after training, and in return receives a stipend varying from Rs. 10 to Rs. 20 a month according to his scholastic qualifications. The senior students receive instruction in organization, method, school management, and the history and principles of education,

college is a school in which the students receive practical instruction in the methods of teaching. The students are supervised and controlled by assistant professors styled superintendents. At the beginning of each period of instruction the student brings to the superintendent 'notes of lessons' which show what he is going to teach. The superintendent watches the teaching, notes the good and bad points, and explains to the student the mistakes he has made. Periodical 'criticism lessons' are given, in which, after the lesson, the student-teacher is criticized first by the other normal students and afterwards by the principal. The lectures on method are illustrated by model lessons delivered by the professor, followed by a discussion. Every student is taught to draw neatly and clearly on the blackboard.

Finance. The table at the end of this chapter shows the total expendi-ure on public education at different periods. The figures for 1860–1 are incomplete. Between 1870–1 and 1901–2 the expenditure rose from 121 to 401 lakhs, the greatest increase occurring between 1881–2 and 1891–2. Owing to changes in classification and to the incompleteness of the earlier figures, it is difficult to carry the examination of detail very far back, and the figures for 1870–1 cannot be compared with those for later periods. The expenditure from Provincial revenues rose from 74 lakhs in 1881–2 to 104 lakhs in 1901–2. In 1881–2 the expenditure from municipal and local board funds was 32 lakhs; in 1891–2 it was 68, and in 1901–2 74 lakhs. The great rise between 1881 and 1891 marks the change due to the introduction of Lord Ripon's system of local self-government. The expenditure met from fees shows an increase from 44 lakhs in 1881–2 to 127 lakhs in 1901–2, indicating the growing interest taken by the people in the education of their children. Expenditure from other sources, the major portion of which consists of the private funds of aided and unaided institutions, increased from 38 lakhs in 1881–2 to 96 lakhs in 1901–2. Turning to the objects of expenditure, the total figures for 1881–2 cannot be compared with those for 1901–2, because in the former case all girls' schools are lumped together instead of being distributed by classes. Taking the figures for male institutions only, expenditure on primary schools shows a rise from 69 to 105 lakhs; on secondary schools from 44 to 109 lakhs; on colleges from 17 to 37½ lakhs; and on training and technical schools from 9 to 20½ lakhs. Even granting that the expenditure on secondary schools is largely derived from fees and other private sources, it is not satisfactory that the

total should have outstripped the expenditure on primary education. In March, 1902, the Government of India made grants from Imperial revenues to the Local Governments aggregating 40 lakhs a year, to assist them to meet additional expenditure on primary education and on the various other reforms which recent investigation into the condition of education has shown to be necessary.

Fees.

Lord Ripon's Government, in reviewing the report of the Education Commission of 1882, directed that private effort should be systematically encouraged by co-operation in raising fees, so that less and less aid might be required from public funds. This instruction has not been systematically followed: the rates vary largely according to Provinces and class of management, and in some cases they have fallen rather than risen. The Presidency College, Calcutta, charges Rs. 144 a year for fees; the Elphinstone College, Bombay, Rs. 120; aided colleges in the United Provinces, on an average Rs. 69; and similar institutions in Bombay, Madras, and Bengal, Rs. 67, Rs. 50, and Rs. 45 respectively. The fees in unaided colleges in Bengal average only Rs. 15 a year, the average being lowered by the fact that many students are admitted free. The fees in secondary aided schools average, in the United Provinces, Rs. 17; in Bombay, Rs. 16; in Madras, Rs. 11; and in Bengal, Rs. 8 per annum. In primary schools the average fee works out to only about R. 1 a year. The rate is lower in board than in aided schools, because the agricultural population, who contribute towards the land cess which is a main support of the board schools, are, in some Provinces, exempted in whole or in part from the payment of fees for the education of their children. The failure to impose a reasonable minimum fee has in many cases led to loss of efficiency, the employment of ill-qualified instructors, and undesirable competition between rival institutions. As observed on page 428 the recent Universities Act is intended to check such improper competition in the case of colleges.

Scholarships.

A system of state scholarships has long played an important part in public instruction in India. As far back as 1839, Lord Auckland proposed to connect the chief District schools with the central colleges by attaching to the latter scholarships to which the best scholars of the former might be eligible. The Education dispatch of 1854 suggested the extension of this system and its adoption with regard to schools of a lower description, 'so that superior talent in every class may receive that encouragement and development which it deserves.' The

Education Commission of 1882 found the system in operation to a greater or less degree in all Provinces, laid stress on its importance, and recommended the grant of scholarships by open competition. A gifted boy may now pass from the village school to the University, and thence into the public service, by a graduated series of state scholarships. As a child he might win a primary scholarship which would take him to the middle school, and another scholarship at the end of the middle school course would carry him through his school career. His next step would be to gain a scholarship at the entrance examination of the University. He would hold this for two years and might then renew it at the Intermediate examination. This last scholarship might be worth Rs. 20 a term, and would enable him to complete the University course for the Bachelor's degree. Finally, it should be mentioned that the Government annually allots two scholarships of £200 a year for three years to Indian graduates, in order to allow them to pursue their studies at a British University. In addition to the state scholarships there are a number of private scholarships, many of which are attached to one or other of the Universities. A few post-graduate fellowships and scholarships have been founded for the encouragement of advanced study and research.

Control. The Educational services.

In a system of public instruction in which the management of schools and colleges is largely left to local and private agency assisted by state contribution, the adequacy of the arrangements for inspection and control is a matter of the first importance. The main controlling agency is the Education department maintained by each Local Government, which, in addition to providing Inspectors, furnishes the professors and teachers for the Government schools. The department is divided into the Indian, Provincial, and Subordinate services. The Indian service is mainly recruited from among graduates of the Universities of the United Kingdom, and its members are employed as Inspectors of schools and as principals and professors of colleges. The Provincial and Subordinate services are recruited in India, and the appointments open to them range from Inspectors and college principals to teachers in primary schools.

Compared with the large aggregate number of schools and pupils, the inspecting staff is a small one. In 1901–2 it comprised 35 Inspectors, 6 Inspectresses, 36 Assistant Inspectors, and 660 inspecting officers of lower grades. In addition to this staff, some Provinces employ a supplementary agency to aid in the inspection of primary schools and the

encouragement of primary education; thus Madras had 256 supervisors of primary schools, Bengal 494 *gurū* instructors, Burma 169 itinerant teachers, and Assam 19 inspecting *pandits*. The substitution of general tests of the efficiency of the school for the more mechanical test of the individual examination of pupils, which is now taking place, throws more work on the inspecting staff, and measures are being adopted to add to its strength. For purposes of inspection the Provinces are divided into circles and sub-circles. The Inspector is the educational representative of the Government in the circle. It is his duty to keep himself well informed with regard to all educational matters in his jurisdiction; he makes constant tours of inspection, examines pupils, and is responsible for the working of the grant-in-aid rules.

Each of the more important Provinces has its own Director of Public Instruction, who is usually a member of the Indian Educational service; and the Home Department of the Government of India, on which falls the duty of supervising and co-ordinating educational effort throughout the country, is now assisted by a Director-General of Education, who spends much of his time on inspection tours in the several Provinces.

The state and religious instruction.

The existence in India of creeds differing widely from one another and from the faith of the ruling power has made it essential for the state to assume a position of strict religious neutrality in its relations with public instruction. This principle was emphatically asserted in the dispatch of 1854 and has ever since been rigidly enforced. No religious instruction is given in the Government schools; and, provided only it imparts sound secular instruction, a private institution is equally entitled to Government aid whether it teaches the religion of the Bible, the Shāstras, or the Korān.

The state and private effort.

When the state assumed the responsibility for the education of the people of India, it had to face a position to which no European country can furnish a parallel. The population was as large as that of all the European states that had then adopted an educational system; it presented at least as many differences of creed, language, race, and custom; and it was to receive an instruction essentially foreign in its higher branches. The magnitude of the task was such as to make it impossible of achievement by any direct appropriation of the resources of the empire, while the popular demand for instruction had in great measure to be created. In 1854 the Court of Directors passed in review the indigenous and foreign educational agencies that were already in existence, and determined to

utilize them all, but to rely mainly on private and local effort carefully supervised and liberally encouraged. They undertook to give pecuniary assistance on the grant-in-aid system to efficient colleges and schools, to direct their efforts and afford them counsel and advice, to encourage and reward the desire for learning in various ways, but chiefly by the establishment of Universities, and to take measures for providing a due supply of teachers and for making the profession of teaching honourable and respected. Of all these provisions the most important and far-reaching was the introduction of the grant-in-aid system, and the event has to a large extent justified the Directors in the reliance which they placed upon it. 'We confidently anticipate,' they said, 'by thus drawing support from local resources, in addition to contributions from the state, a far more rapid progress of education than would follow a mere increase of expenditure by the Government, while it possesses the additional advantage of fostering a spirit of reliance upon local exertion and combination for local purposes, which is of itself of no mean importance to the well-being of a nation.' The plan inaugurated by the Directors has, on the whole, stood the test of time; but later experience has shown that it may be dangerous for the state to withdraw too much from direct participation in educational work. Without a certain proportion of direct government outlay and management primary education is apt to languish and secondary education to deteriorate.

Government employment and public instruction.

There exists in India an intimate relation between public instruction and the service of the state. The careers open to educated men are less numerous and varied than in Western countries, and government service is still the most important among them. The hope to see their children in the service has from the outset been one of the strongest inducements to parents to interest themselves in education, and, on the other hand, the great improvement that has taken place in the quality of the government servants has been one of the most important results of that education. A race of government officials and clerks has gradually grown up largely imbued with Western conceptions of probity and business, and fit to take their part in the administration of a great country. In choosing candidates for state employment the Government relies to a large extent on the general school and University examinations, supplemented sometimes by special tests and special selection. For administrative and judicial offices a good University degree may be required; for lower appointments, success in the matriculation or some corresponding examination.

It has been said that the growth of modern ideas, for which the spread of education is to a considerable extent responsible, has had the effect of inducing in the younger generation, and especially among the Hindu community, a want of reverence and respect and an impatience of lawful control. This phenomenon is by no means exclusively Indian; it has manifested itself wherever old moral and social sanctions have been weakened or destroyed by new sources of knowledge and freer methods of thought. In India the danger has to some extent been aggravated by the exclusively secular character of the instruction given in most schools and colleges. The Government has not watched the growth of this spirit with indifference, nor has it neglected to devise means to counteract it. The whole subject was passed under review in the year 1887–8, and various measures were then introduced or extended which have had considerable effect in improving the moral training of schools and colleges. The Government must of course hold aloof from even the appearance of religious propaganda; and reliance is placed chiefly on the influence of carefully trained and selected teachers, the maintenance of a high standard of discipline, the institution of well-managed hostels, the selection of textbooks inculcating moral precepts or wholesome example, physical training and athletic sports, and social intercourse between teachers and pupils. The duty of enforcing discipline and caring for the moral training of their pupils is imposed on teachers by the regulations of all Local Governments, and the instruction given in normal colleges and schools has greatly enhanced their capacity for fulfilling this duty. The disciplinary methods are much the same as those practised in England, but it must be remembered that they have usually to be adapted to day-school conditions. In certain Provinces, and notably in Bombay, the monitorial system has been introduced with some success. The ordinary school punishments are impositions and fines, and for graver offences corporal punishment, suspension or rustication, and expulsion. Good-conduct registers are maintained in some places. A more complete system of discipline and training can of course be carried out where boarding-houses have been established. In Northern India some progress has been made in the establishment of secondary boarding-schools, but elsewhere the number is still small. More has been done in this respect for colleges. The question of moral textbooks has been much discussed, and various works inculcating moral precepts are used; but it is only when employed by good teachers and in conjunction

Moral training.

with other means of moral influence that they can produce substantial effect. Textbooks, such as biographies, which present a worthy example in an attractive form, are also recommended for school use. Athletic sports and social intercourse between pupils and teachers are closely connected, inasmuch as the playground is the best place for developing such intercourse, and for enabling the master to become acquainted with his boys and acquire a kindly influence over them. Special attention has been paid of recent years to drill, gymnastics, and sports. The result has been remarkably successful, and Indian boys have developed a great liking and aptitude for gymnastics, tennis, cricket, football, and other games. Inter-school and inter-college sports have done much to foster this liking, and are creating a spirit of school patriotism which was previously wanting.

Textbooks.

The Government of India has recognized that the system of aided instruction entails on the state the duty of watching over the selection of textbooks and guarding against the introduction of useless or mischievous works. Separate series of school-books are prepared and maintained in each Province under the control of the Local Government, while the duty of prescribing books for the University courses, including matriculation, rests with the University authorities. The number and variety of the languages spoken in India make the provision and selection of vernacular textbooks a specially difficult task. The Local Governments are aided in the maintenance of textbook lists by committees presided over by the Director of Public Instruction, and composed of educational and other government officers and also private persons interested in the cause of education. In some Provinces sub-committees are formed to deal with particular subjects or languages. The committee's recommendations are submitted to the Local Government and, if approved, the works proposed are included in the Provincial list. For government and local board schools the course of instruction is laid down and the textbooks are absolutely prescribed. In the case of aided schools a wider choice is given, but the managers may adopt no textbook not included in the list without the sanction of the Local Government. In the Universities textbooks are chosen by the Faculties, or by Boards of Studies appointed from among the Fellows, for particular subjects.

Public examina-

A series of public examinations has hitherto been held at different stages of the school course. Thus in the United

Provinces examinations were prescribed at the end of the lower primary, upper primary, vernacular middle, English middle, and high school stages. A somewhat diminished importance has attached to these examinations of late years, and some which were compulsory have been made optional. They have continued, however, to exercise a dominant influence on school teaching, and have been used for class promotions, the distribution of the grant-in-aid, the award of scholarships, and the test for subordinate government appointments. The multiplication of public examinations has had its bad effects: their strain has sometimes been injurious to the children, and they have engendered unsound methods of teaching and learning. Measures have now been taken to reduce their number, and to mitigate the evils arising from the tendency to regard the passing of examinations as the end of school training. tions in schools.

Journalism and literature

The growth of journalistic and literary activity among the natives of India is a subject intimately connected with the development of the educational system. The annual output of newspapers, periodicals, pamphlets, and books is very considerable in quantity; and, though much of the work produced is unimportant, modern India has given birth to able journalists and authors. During the ten years ending 1901-2, the number of registered printing presses increased from 1,649 to 2,193; the number of newspapers from 602 to 708; the number of periodical publications (other than newspapers) from 349 to 575; the number of books published in English, or some other European language, from 768 to 1,312; and the number of books published in Indian languages (vernacular and classical), or in more than one language, from 5,751 to 7,081. It is worthy of note that the increase of books in the Indian languages does not keep pace with the growth of English publications; in 1901-2 their number was, however, still about five and a half times as large as the number of books printed in English.

Newspapers.

The missionaries were the pioneers of Indian vernacular journalism. The Serampore missionaries first cast type for the vernacular languages, and employed native compositors. 'The earliest vernacular newspaper was issued in Bengali by the Baptist Mission at Serampore, in 1818. For many years the vernacular press preserved the marks of its origin, being limited almost exclusively to theological controversy. The missionaries were encountered with their own weapons by the theistic sect of the Brahmo Samāj, and also by the orthodox Hindus. As late as 1850, most of the vernacular newspapers

were still religious or sectarian, rather than political[1].' During the last half-century the character of the press has undergone a marked change, and the majority of the newspapers owned by natives now devote themselves to current topics and political discussion.

The 700 newspapers published in 1901–2 fall under three main heads: English papers owned by Europeans and issued primarily for the European community, English papers owned by natives, and vernacular papers. About one-fifth of the total are published in English. The following daily papers are among the most important journals of the first class: The *Pioneer*, published at Allahābād; the *Englishman*, the *Indian Daily News*, and the *Statesman*, at Calcutta; the *Civil and Military Gazette*, at Lahore; the *Madras Mail* and the *Madras Times*, at Madras; the *Times of India* and the *Bombay Gazette*, at Bombay; and the *Rangoon Times* and the *Rangoon Gazette*, at Rangoon. Most of the journals belonging to the second and third classes are issued weekly, fortnightly, or monthly, and the number of daily papers either in English or in the vernaculars is small. Many are unimportant journals of an ephemeral character, and with a circulation of a few hundreds only; the total number with a circulation of over 2,000 copies is very small. The number of readers is, however, much greater than the number of copies printed. Bombay produces the largest number of vernacular newspapers, and after it come Madras, the United Provinces, and the Punjab. Bengal has fewer vernacular papers; their sale suffers from competition with the English papers of comparatively large circulation owned by natives. In Madras the vernacular papers with the largest circulation are still the mission organs; among the most important of them are the *Satya Dūtan* or *Messenger of Truth*, a Tamil paper published at Madras, and the Anglo-Telugu *Messenger of Truth*, also published at Madras. Of the Hindu papers, the *Hindu* (published in English), the *Swadesa Mitran* (Tamil), and the *Andhra Prakāsika* (Telugu) may be mentioned. The Bombay journals are almost equally divided between Marāthī and Gujarātī. The political attitude of the Marāthā press is generally that of opposition to Government. Among their journals are the *Mahratta* and the *Kesari*, both of which are published at Poona, the former in English, and the latter in Marāthī. The Gujarātī newspapers are mainly the organs of the Pārsīs, and of the trading community generally. The Bombay press includes several organs of the 'Young

[1] Hunter's *Indian Empire*, 3rd edition, pp. 569-70.

India' school of politicians, such for instance as the *Kaiser-i-Hind*, *Native Opinion*, the *Voice of India*, and *East and West*. Among the Bengal papers the following may be noticed: the *Bengalee*, the *Amrita Bazar Patrika*, and the *Indian Mirror*, printed in English; and the *Bangabāsi*, the *Basumati*, and the *Hitabādi*, printed in Bengali. All these journals are published in Calcutta, and they occupy themselves largely with political discussion. A considerable number of papers are published in Urdū and Hindī in the large towns of the United Provinces and the Punjab. Many of them are conducted with ability and enterprise, and may fairly be described as representative of local native opinion among the educated classes.

The 8,400 books which were published in 1901–2 include works of the most diverse character and varying merit. Of the 1,312 English publications, 621 appeared in Bengal, 341 in Madras, and 184 in Bombay. Among the major Provinces the distribution of Indian publications was as follows: Bengal, 2,448; the United Provinces, 1,362; the Punjab, 1,135; Bombay, 1,104; Madras, 825; and Burma, 127. The most noteworthy features of these statistics are the prominence of Bengal, and the literary activity of the educationally backward United Provinces and Punjab. In the subjects of the books religion is conspicuously prominent; poetry and the drama take the second place; and then, in order, language, fiction, history and biography, medicine, law, mathematics and mechanics, and philosophy. It must be admitted that few among the large number of publications are of much interest. The religious works are often mere commentaries on older works or controversial pamphlets. A large proportion of the works of a secular character are books for school use, and these are often of a very inferior description. The following brief account of the literature produced in some of the larger Provinces in the year 1901–2 is derived from the reports of the Local Governments. In Bengal the most important historical work of the year was a history of Bengal in the eighteenth century, written by Babu Kālī Prasanna Banerjī. Several translations of the classical dramas of India, and translations or adaptations of the works of European dramatists, appeared in Bengali. Most of the fiction of the year dealt with domestic life, and displayed little conception or development of plot. Lyrics and sonnets figured largely among the poetical works, and a number of the poems give expression to grief at the death of Queen Victoria. The literature dealing with religious subjects was voluminous. Most of the works on scientific

Books.

subjects were of little interest. In the United Provinces the publications in Sanskrit were mostly reissues of old works on philosophy, language, and religion, and the Arabic publications were generally on the subject of religion. More than half the works in Persian were educational; there were also some poetical compositions, but they possessed little merit. A few works of some interest were published in English by native writers on the subject of social reform, and there was one noteworthy attempt at historical research. Hindī and Urdū publications testified to the religious activity among Hindus and Muhammadans. The Census operations gave rise to the issue of several pamphlets dealing with the caste question. The subject of female education received considerable attention, and some Muhammadan writers attacked the strictness of the *parda* system. A number of native ladies, chiefly Muhammadan, were among the list of authors, and some of their productions showed considerable merit. Novel-writing is always popular, and a few of the Hindī novels were acquisitions to the language. The history of Islām attracted several writers, and some Urdū novels were published. In the Punjab a large proportion of the works, especially of the English and Urdū publications, were educational. Taking the essentially indigenous books, a noteworthy feature is the prevalence of poetical and religious works. As a rule, the literary activity of the Muhammadan writers is centred on religion, and they usually publish more books on religious questions than all the other creeds put together. The literary efforts of Hinduism are limited for the most part to mere revisions of the older works on mythology and legend, or to controversial works on social questions, such as infant marriage, widow remarriage, and the like. The Sikhs, in proportion to their numbers, show great activity, and there has been a strong separatist movement in the past decade advocating the abandonment of Hindu customs. In Bombay poetry and religion were the foremost subjects, and, with few exceptions, the publications of the year were of an unimportant character. The same may be said of Madras.

The statistics of education in this chapter comprise the Native States under the Government of Bombay, the Feudatory States of the Central Provinces, Cooch Behār, and the Tributary Mahāls of Orissa, while the minor British administrations of Ajmer, Baluchistān, and the Andamans are omitted. The Bombay States have for the most part adopted the Government system of instruction and inspection, and in some of them the

educational standard is equal to that in the neighbouring British Districts. In recent years considerable attention has been given to education in a number of Native States. No complete survey of the progress made is possible, but the large States of Baroda, Mysore, Travancore, and Gwalior may be specially mentioned. In Baroda an interesting experiment has been made by the enforcement of attendance at primary schools within a limited area.

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STATISTICS OF PUBLIC INSTRUCTION

	1860–1.	1870–1.	1881–2.	1891–2.	1901–2.
Primary Schools.					
Institutions . .	5,450	15,921	86,269	97,109	97,854
Scholars . .	201,245	517,574	2,156,242	2,837,607	3,204,336
Secondary Schools.					
Institutions . .	142	3,146	4.122	4,872	5,493 (*c*)
Scholars . .	23,165	206,300	222,097	473,294	622,768(*c*)
Arts Colleges (including Oriental Colleges).					
Institutions . .	17	44	67	104	145
Scholars . .	3,182(*a*)	3,994(*b*)	6,037	12,985	17,651
Schools for Special Instruction.					
Institutions . .	26	104	238	554	1,084
Scholars . .	1,937	4.346	9,150	21,7 2	36,380
Colleges for Professional Training.					
Institutions . .	8	19	18	37	46
Scholars . .	679	2,126	1,545	3,292	5.358
Total.					
Institutions . .	5,643	19,234	90,714	102,676	104,622
Scholars . .	230,208	734,340	2,395,071	3.348,910	3,886,493
Expenditure on Education (in thousands of rupees).	35,94	1,21,15	1,87,50	3,05,20	4,01,21

NOTE.—The figures for 1860–1 include only the Provinces of Madras, Bombay, Bengal (with Assam), and Agra. Upper Burma is added in the 1891–2 column; other Provinces come in from 1870–1. The year 1881–2 has been selected in preference to 1880–1 as more complete figures are available for it.

(*a*) Includes pupils in school departments attached to colleges.

(*b*) Includes pupils in school departments attached to colleges for the United Provinces only.

(*c*) In the statistics for 1901–2 the primary departments of secondary schools in the United Provinces and the Central Provinces are shown as separate institutions, and are included, with the pupils in them, under the head of primary schools.

CHAPTER XIV

MEDICAL ADMINISTRATION, HOSPITALS, AND SANITATION

Ancient Indian medicine.

A BRIEF reference to the ancient Indian systems of medicine will form an appropriate introduction to the account given in this chapter of the medical and sanitary administration of British India. The subject of Hindu medicine is one of special interest, inasmuch as it had considerable influence on the development of medicine in Europe. The works of Charaka and Susruta, the two greatest Sanskrit medical authorities, were rendered into Arabic at the close of the eighth century A.D., and are quoted as authorities by the celebrated Arabic physician Ar-Razi, who died in 932. Arabic medicine in its turn became, down to the seventeenth century, the chief authority for European physicians, and Charaka is frequently mentioned in Latin translations of Arabic writers[1]. The national medicine of India derived its first impulse from the exigencies of the national worship, for anatomical knowledge had its origin in the dissection of the victim at the sacrifice, with a view to dedicating the different parts to the proper gods. The ancient medical science was ascribed to the gods and known by the collective title of Ayur Veda. The best era of Indian medicine was contemporary with the ascendancy of Buddhism (250 B.C. to 750 A.D.), and the public hospitals which the Buddhist princes established in every city were the great schools of Indian medicine. The works of Charaka and Susruta belong to this period. The Hindu medical system, though not devoid of errors and absurdities, shows, at its best, a surprising degree of progress in all branches of the science. The *materia medica* of the early Hindus embraced a vast collection of drugs, indicating a great knowledge of herbs and considerable chemical skill. They were acquainted with, and understood the preparation of, a wide range of chemical compounds, and were the first to prescribe the internal use of metallic substances. Their pharmacy contained ingenious

processes of preparations, with elaborate directions for the administration and classification of medicines. Their practice of physic embraced the classification, causes, symptoms, and treatment of diseases. The maladies thus dealt with were arranged in ten classes: namely, those affecting (1) the humours; (2) the general system, including fevers; (3 to 9) the several organs and parts of the body; and (10) trivial complaints. The surgery of the ancient Indian doctors appears to have been bold and skilful. They performed amputations and a number of other difficult operations, and were expert in midwifery. Students were trained to operate on wax spread out on a board, or on the tissues and cells of the vegetable kingdom, and upon dead animals. As Buddhism passed into modern Hinduism, the hospitals disappeared; and the Brāhmans, scrupulously avoiding contact with blood or morbid matter, withdrew from the medical profession and left it in the hands of the Vaidyas, a lower caste. They, in turn, abandoned medical practice; and thus the decline of Hindu medicine went on until it sank into the hands of the village *kabirāj*, whose knowledge consists of jumbled fragments of the Sanskrit texts and a by-no-means contemptible pharmacopœia, supplemented by spells and fasts. Meanwhile the Muhammadan conquests brought in a new school of foreign physicians, who derived their knowledge partly from Arabic translations of the Sanskrit medical works of the best period, though more largely from the Greek authors (Hippocrates, Galen, &c.), whose works had likewise been translated into Arabic. These Musalmān doctors or *hakīms* monopolized the patronage of the Muhammadan princes and nobles of India[1].

Duties of the Medical and Sanitary department in British India.

The work of the Medical and Sanitary department in British India includes a number of important branches of the public service. Hospitals, dispensaries, and lunatic asylums; vital statistics; general sanitation and vaccination; the health of ports and shipping; medico-legal, bacteriological, and other scientific and miscellaneous matters fall within its scope. Before giving an account of the more important of these subjects, it will be convenient to describe the constitution and organization of the department.

Constitution of the department.

The principal and subordinate officers are drawn from five sources: the Indian Medical Service, civil and military Assistant Surgeons, and civil and military Hospital Assistants. The Indian Medical Service (known as I.M.S.) is

[1] Hunter's *Indian Empire*, pp. 148-51.

primarily a military service and its members are commissioned officers of the army. There were originally three distinct branches, corresponding to the Bengal, Madras, and Bombay armies; these were combined in 1896 on the abolition of the Presidential army system. The Bengal service was created as far back as 1764, for the purpose of affording medical relief to the troops and servants of the East India Company in the Bengal Presidency, and the Madras and Bombay services had a similar origin. Candidates for the Indian Medical Service must possess degrees or diplomas qualifying them to practise medicine and surgery, and are selected in England by competitive examination. They then undergo a four months' special course and, after passing a second examination, join the army in India. Except under special circumstances, they must perform two years' military duty before becoming eligible for civil employment. The service is open to natives of India, and nine of them entered it during the ten years ending in 1902. The employment of a single service for military and civil duties is an economical arrangement to provide a reserve of medical officers competent to accompany the army in time of war. The present strength of the service is about 700. The military duties of the Indian Medical Service are, it should be explained, confined to the Native army. Medical duties in connexion with European troops are performed by the officers of the Royal Army Medical Corps (R.A.M.C.).

Civil Assistant Surgeons form the superior branch of the subordinate medical department. In the Bengal Presidency this service came into existence in 1838, when four pupils passed out of the recently established medical college at Calcutta[1]. Candidates are trained in the medical colleges and must possess a University degree or diploma. The Assistant Surgeons have charge of numerous minor hospitals and dispensaries; they also fill subordinate posts in large hospitals and hold many miscellaneous appointments, while a considerable number are lent to municipalities and local boards. Their attainments and the quality of their work have shown satisfactory improvement, and some minor civil surgeoncies previously held by the Indian Medical Service are now reserved for the best among them. Civil Hospital Assistants have lower professional qualifications. They are usually trained in the medical schools, more than twenty of which have been established in different parts of India, and they are employed in minor dis-

[1] For a short account of the medical colleges and schools, see the preceding chapter (Education).

pensaries and in a variety of subordinate posts. Some of them obtain private employment, and there is an increasing demand for their services among employers of labour, such as the managers of tea gardens and other large concerns. A certain number of civil appointments are set apart for the military subordinate medical service in order to furnish a war reserve. The majority of the native medical officers are high-caste Hindus; and then come native Christians, Muhammadans, low-caste Hindus, Pārsīs, and a few Burmese. Native Christians and low-caste Hindus are commonly found only in the Madras Presidency.

The military Assistant Surgeons are mostly Europeans or Eurasians, the latter predominating. Military Hospital Assistants are usually natives belonging to the same classes as the civilians.

The appointments in the Medical and Sanitary department are not all reserved for officers of Government services. Experts outside those services are sometimes appointed to special posts, and it is recognized that encouragement should be given to the growing medical talent of the country. Hitherto, however, the Indian Medical Service has proved the best source for superior appointments. Government medical officers are allowed the privilege of private practice, except in certain appointments where this would interfere with the performance of their public duties.

Organization.

The chief civil medical officer and administrative head of the Indian Medical department is the Director-General, Indian Medical Service, who has the rank of Surgeon-General[1]. Between 1880 and 1904 he was also Sanitary Commissioner with the Government of India, and in that capacity was the adviser of the Supreme Government on all matters connected with the health of the civil population and the army; this appointment has now been allotted to a separate officer. The Director-General is the direct successor of a Medical Board, which consisted of two officers entitled the Surgeon-General and the Physician-General, and which dates back to an early period of the East India Company's history. It was originally styled the Hospital Board, and its functions were of a military character. In 1796 the Court of Directors changed its title

[1] The medical administration of the army is vested in a Surgeon-General, who is styled Principal Medical Officer, His Majesty's Forces in India. He is a staff-officer of the Commander-in-Chief, while the Director-General, Indian Medical Service, is under the Home Department of the Government of India.

to that of 'Medical Board,' and extended its duties to the superintendence of the 'Medical department of the Civil Service.'

In each Province the administration of matters medical and sanitary is under the control of the Local Government, whose principal advisers are an Inspector-General of Civil Hospitals (a Surgeon-General in Madras and Bombay) and a Sanitary Commissioner. These offices are combined in the smaller Provinces. Except in Bombay, the District medical and sanitary arrangements are under the charge of a medical officer styled the Civil Surgeon[1]. He superintends medical institutions and, subject to the general authority of the Collector or Deputy-Commissioner, all matters connected with the health of the population. It is his duty to give professional attendance to the superior Government officers who are granted the privilege of free medical treatment, and he also performs most of the medico-legal work of the District. In the Bombay Presidency the Civil Surgeon is occupied mainly with the duties of the head-quarters station, though he also does inspection work. The rural hospitals and dispensaries are there under the direct control of the Surgeon-General, and the sanitary work is supervised by five Deputy Sanitary Commissioners under the orders of the Provincial Sanitary Commissioner. The duties of these officers are to superintend and encourage the sanitation of the Districts and towns within their circle, to inspect dispensaries, and generally to advise the District officers on matters affecting the public health. They deal also with vaccination and vital statistics.

History of medical institutions.

Medical institutions were established at an early date in the Presidency cities, for the relief of the natives as well as for the treatment of the Company's servants. Thus the Madras General Hospital dates back to 1679, and four other hospitals were established in that city between 1800 and 1820. In Calcutta, the Presidency General Hospital was founded in 1795 and the Medical College Hospital in 1852-3. In the country generally progress was for a long time slow, and the main development has taken place during the past thirty years. Under regulations which prevailed in the old Bengal Presidency during the first half of the nineteenth century, the Government aided the foundation of hospitals and dispensaries in places of importance, where the inhabitants were ready to help in this work, provided (which was not always the case) that a medical officer was available to take charge of the new institution. In

[1] In Madras he is called the District Medical and Sanitary Officer.

1854 the rules were made more precise, and the Government consented to supply officers of a rank depending on the amount of local subscriptions, and to furnish instruments and medicines. The hospitals were under the general charge of the senior medical officer of the District, and were inspected by the Superintending Surgeon of the circle, who combined military and civil duties, but whose office has now ceased to exist. Since the creation of municipalities, and later of District boards, local authorities have taken an ever-increasing share in the provision of medical relief. The Madras Presidency possessed twenty-two District dispensaries in 1852; the Bombay Presidency twenty-one in 1854; and Lower Bengal forty-five in 1859. Later progress is shown in the first table at the end of this chapter; in 1880 the total number of public hospitals and dispensaries in British India under Government control was about 1,200, in 1890 about 1,700, and in 1902 nearly 2,500. There were three main causes for the slow progress in early years—indifference on the part of the people, want of officers, and insufficient funds. Both Hindus and Muhammadans have, as we have seen, their own systems of medicine, and it took long to familiarize them with Western methods and drugs. Even now, notwithstanding the large extent to which recourse is had to the dispensaries, many natives prefer to be treated by men who practise the ancient systems. The difficulty in supplying doctors has to a large extent disappeared with the increased facilities for medical education: there were about 4,200 students in the medical colleges and schools at the end of 1901–2, and the practice of medicine is recognized as offering a profitable career.

Classes of District hospitals and dispensaries.

In 1902 British India contained, outside the Presidency towns, about 2,400 public hospitals and dispensaries under Government control, nearly 500 independent private institutions, and more than 500 special institutions in connexion with police, railways, &c.[1] Hospitals belonging to the first of these classes are, generally speaking, maintained from, or aided by, Provincial or local revenues. Omitting institutions maintained for special purposes, the total number of dispensaries amounted on an average to one in about 330 square miles of country. The proportion is highest in Bengal and Bombay, and lowest in the Central Provinces and Burma. Except in Bombay, Upper Burma, and the Central Provinces, the Govern-

[1] The figures cannot be given with absolute accuracy. All private institutions are not included in the returns, and the system of classification is not uniform in all Provinces.

ment directly maintains very few hospitals; in almost all Provinces the great majority of medical institutions are supported by municipal and District boards. In some cases the Government assists by supplying officers, making contributions, and in other ways, and generally the officer in charge is lent by the Government and paid from the local fund. Local fund hospitals are given the further privilege, if they desire it, of purchasing European drugs from the Government store dépôts at Calcutta, Madras, Bombay, Miān Mīr, and Rangoon. They make their own arrangements for the supply of indigenous drugs purchasable locally. The use of such drugs is encouraged, and there is a permanent committee for investigating and making known their properties. The total number of private institutions shown in the returns for 1902, including those independent of Government control, amounted to about 1,000. They are most numerous in Bombay, where they constitute the largest class of medical institutions. The funds for private hospitals are mainly derived from charitable donations, local subscriptions, and missionary societies. To found or endow a hospital appeals to the charitable instincts of a wealthy Hindu, though the only hospitals of purely native origin are those for animals, to be found in Western India under the name of *pinjrāpol*.

Description of District medical institutions.

The principal hospital is always situated at the head-quarters of the District. It is under the immediate charge of the Civil Surgeon, aided by subordinate officers; and, having the best staff and equipment, it secures the most important cases. Branch institutions are opened at convenient places within the District, and are (except in Bombay) under the general superintendence of the Civil Surgeon, who, in most Provinces, is required to inspect them three times a year. The officer in immediate charge is generally an Assistant Surgeon or Hospital Assistant of the Government service; but, especially in Bengal, duly qualified native doctors not on the Government list are also employed. The branch institutions are mainly for dispensary work; they have, as a rule, little accommodation for in-patients, and the little that is provided is sometimes in excess of the demand. The out-patient system is more acceptable to a population which keenly dislikes being away from home during illness. The management of District dispensaries is usually vested in local committees, which endeavour to rouse popular interest in the work of medical relief. Continuous effort is made to increase the efficiency of the hospitals and dispensaries. Better and more modern buildings are being

gradually provided, and increased attention is paid to the privacy and comfort of the patients and to the attractiveness of their surroundings. Much, however, remains to be done even at head-quarters, and many branch dispensaries are too poor for more than the simplest arrangements. In 1901 nearly two-fifths of the Bengal dispensaries had incomes of less than Rs. 1,000 a year. Experiments have from time to time been made with a view to bring medical relief nearer home to the people. In the Delhi District (Punjab) dispensary officers were for some years sent on tour at stated periods, but this was found to interfere with their ordinary duties. A similar plan has recently been tried in Bengal, and also a system of supplying medicine chests to village headmen. Such experiments are still in their infancy. Much wider success has attended the practice, which originated in Bengal and has been extended to other Provinces, of supplying quinine through the agency of the post office in quarter-anna packets, made up in the jails and each containing five (now seven) grains. In 1903-4 more than 7 million packets were sold in this way.

Presidency hospitals.

The most important of the hospitals in the Presidency towns are under Government management. The largest contain several hundred beds, are equipped with the most modern appliances, and are officered by large European staffs. The cities of Calcutta, Madras, and Bombay are served by sixty-two hospitals and dispensaries—Government, local, and aided; and Bombay has in addition twenty-one unaided private dispensaries. Nearly a million cases were treated at these institutions in 1902. The most important general hospital in each Presidency town is connected with the local medical college, and the surgeons and physicians are also, as a rule, professors there. Calcutta and Bombay possess large European hospitals; in Madras, Europeans are treated in a branch of the general hospital.

Patients.

The total of the returns for all classes of dispensaries shows that about 26½ million persons obtained medical relief in 1902. But this figure does not imply so many separate individuals, for one person may obtain relief several times in the course of the year. The proportion is highest in the Punjab and the Central Provinces and, notwithstanding its large number of dispensaries, lowest in Bengal. In all parts of India, except the Punjab and Assam, Muhammadans resort to the dispensaries more freely than Hindus. In 1902 about 55 per cent. of the patients in District hospitals under Government control were men, 19 per cent. women, and 26 per cent. children.

The proportion varies in different Provinces, but the order is the same in all. The customs of the country render women, especially those belonging to the upper classes, disinclined to seek dispensary relief and treatment by male practitioners. Great efforts have been made to afford the women of India medical relief in a form acceptable to them. Many hospitals have been established for their exclusive use, and arrangements are in force to secure their privacy in general dispensaries. Special attention has been paid to the education of lady doctors and subordinates, and to the training of *dais*, or native midwives, in local hospitals. Great interest attaches in this connexion to the work done by the 'National Association for supplying Medical Aid to the Women of India' founded by the Countess of Dufferin in 1885. It is supported by voluntary contributions and occasional grants from Government, and maintains about 260 hospitals, wards, and dispensaries, officered by women. Nearly two million women and children received medical aid in these hospitals, or at their homes, during 1901. A sum of almost 7 lakhs of rupees was collected by Lady Curzon in 1901-2 for the training of native midwives.

Medical and surgical work

The diseases principally prevalent in India have received notice in chapter x of Vol. I. Malarial fever is the malady most frequently treated in the hospitals, accounting for more than one-sixth of the total number of cases. Surgery has grown to be a specially important part of hospital work, and the popular prejudice which at one time existed against it has been largely overcome by the striking nature of the results. Excellent surgical practice is afforded by the large hospitals, and a high level of skill is attained. In 1902 nearly 900,000 operations were performed. Cataract is a very common disease in India, and people resort in great numbers to the hospitals to be treated for it; in 1901 one officer in the Punjab performed more than 1,700 operations for its cure.

Finance.

The income of the public medical institutions under Government control in the years 1880, 1890, 1900, and 1902 is shown in the first table at the end of this chapter. It has increased during the twenty-two years in question from 37 to nearly 82 lakhs, of which 21 lakhs belong to the hospitals and dispensaries of the Presidency towns. The receipts from municipal and local funds and 'other sources' have risen much more rapidly than the direct outlay from Provincial revenues. Half the total under the third item in the table is derived from subscriptions.

Lunatic asylums.

In the Indian Census of 1901 only 66,000 persons were returned as insane in a population of 294 millions. This is less

than one-fourteenth of the proportion of insanes in England. Causes contributing to the contrast are the comparative rarity of alcoholism and of aberration due to religious terrors, and the circumstance that the bulk of the Indian population are less highly strung, and possess less brain energy, than the inhabitants of modern Europe. A very small proportion, consisting in general of destitute wanderers and dangerous persons, find their way into the lunatic asylums: the majority are harmless and are looked after by their friends. In India, as in other Oriental countries, a certain respect is shown towards insane persons, who are believed to be possessed by a mysterious and supernatural spirit. During the five years ending with 1900 the average lunatic asylum population was only 4,600. The asylums are administered under an Act of 1858, which provides for the admission and release of insane persons and the control of the institutions by visitors. All lunatic asylums are under Government management, and the majority were formerly in charge of the Civil Surgeons of the Districts in which they were situated. These officers had not always the time or the special knowledge which the subject demands; and it has recently been decided to establish central asylums, under whole-time officers, in Madras, Bombay, Bengal, the United Provinces, and the Punjab, and to reduce the number of smaller institutions. The superintendence of a central asylum is open to members of the Indian Medical Service, with a salary sufficient to induce able officers to devote their career to the study and treatment of insanity. At the same time improvements have been effected in the subordinate staff, and arrangements have been made for the study of insanity, including clinical instruction at the central asylums.

Leper asylums.

Asylums are maintained in a number of places for the segregation and treatment of lepers. The subject of leprosy in India was investigated by a Commission in 1890–1, and their report was carefully examined both in England and in India. These inquiries led to the general conclusions that the disease does not prevail in India to such an extent as to constitute a general danger, and that the degree to which it is propagated by contagion is small. It was, nevertheless, held desirable to take legal power to deal with pauper lepers wandering about and displaying the ravages of the disease for the purpose of exciting charity, and to prohibit lepers from following certain callings connected with food and other bodily requirements, and from using public tanks and wells.

History of the

The history of general sanitary work in India begins practically with the investigations of the Royal Commission which

Sanitary department.

reported in 1863 on the sanitary state of the army. In commenting on the bad health of the troops, the Commission laid stress on the evil effect of the insanitary condition of the general population; and, in accordance with their advice, Sanitary boards were appointed, in 1864, in each Presidency, principally for the army, but also for the general care of the public health. The Bengal Sanitary board was replaced in 1866 by a Sanitary Commissioner with the Government of India, and a similar change was carried out locally by the Governments of Madras and Bombay. In 1867 Sanitary Inspectors-General, afterwards called Sanitary Commissioners, were appointed in the other Provinces to investigate the sanitary condition of the people and to suggest means for its amelioration. The Civil Surgeons were constituted health officers of the Districts, and their functions in this capacity were gradually extended until (except in Bombay) they have become the general advisers of the local authorities on all sanitary matters. Such work as was accomplished was done through the agency of the District and Municipal staffs, and later on also through District and other local boards. In 1880–1 endeavour was made to provide a more complete supervising agency by amalgamating the sanitary and vaccination staffs. The Superintendents of Vaccination (who were commissioned medical officers) were made Deputy Sanitary Commissioners, and were directed to supervise general sanitary work as well as vaccination and vital statistics. The extension of local self-government under Lord Ripon strengthened the executive agency and increased the available funds. The next step made was the establishment, under orders issued in 1888, of a Sanitary board in each Province, armed with the powers necessary for the control of the sanitary work of municipalities and District boards. The Provincial boards were to be composed of administrative and public works officers, and of the Sanitary Commissioner. By 1893 Sanitary boards had been established in every Province except Berār, where a system of District sanitary boards already existed. The Sanitary boards have varied considerably from time to time, and from Province to Province, in composition, functions, and utility. The most comprehensive scheme was that introduced by the Government of the United Provinces in 1896, under which the Sanitary board includes the Inspector-General of Civil Hospitals, a Secretary to Government in the Public Works Department, and the Sanitary Engineer. It advises the Commissioners of Divisions with regard to sanitary works projected in towns and rural areas, and itself sanctions the execu-

tion of works by District boards, to which it contributes from funds placed at its disposal by the Local Government. The appointment of Sanitary Engineers was an important outcome of the orders of 1888. They are now employed in all large Provinces to draw up and supervise the execution of sanitary projects, and are the technical advisers of the Sanitary boards. In 1898, after long discussion with the Local Governments, the Government of India issued fresh orders for the encouragement of sanitary progress. While recognizing the need for proceeding with great caution in imposing reform on the rural population, the Governor-General-in-Council emphasized the importance of the duties of the Civil Surgeon as health officer of the District, and urged the desirability of gradually substituting a better trained agency for the subordinate supervising staff of the Vaccination department. Considerable progress has been made in some Provinces on these lines. The system in the Bombay Presidency differs from that in force elsewhere in that, as already stated, the Civil Surgeon is not concerned with the sanitation of the Districts, which are grouped in circles, each under the charge of a Deputy Sanitary Commissioner. The Indian Plague Commission of 1898 criticized the existing organization of the Sanitary department, and its further improvement is now under consideration.

Rural sanitation.

Only one-fourteenth of the population of British India live within municipal limits, and the problem of rural sanitation involves, therefore, the health of the great bulk of the inhabitants. When sanitary reform in India received its first impetus from the investigation of the Royal Commission of 1863, there was practically no organization for the prosecution of sanitary work outside the Presidency towns. The villagers dwelt in complete indifference to their unhealthy surroundings, and virulent epidemics raged unchecked and almost unknown to the authorities. Since then progress has been slow, and incommensurate with the thought and labour that have been bestowed on the subject. The reason lies in the apathy of the people and the tenacity with which they cling to domestic customs injurious to health. While the inhabitants of the plains of India are on the whole distinguished for personal cleanliness, the sense of public cleanliness has ever been wanting. Great improvements have been effected in many places; but the village house is still often ill-ventilated and over-populated; the village site dirty, crowded with cattle, choked with rank vegetation, and poisoned by stagnant pools; and the village tanks polluted, and used indiscriminately for bathing, cooking,

and drinking. That the way to improvement lies through the education of the people has always been recognized. One of the first acts of the Sanitary department was the issue of simple rules for village sanitation, which were translated into the vernacular and explained to the villagers by the District officer; and similar efforts continue to be made. The rudiments of hygiene form a portion of the course of primary education, and the improved methods of modern elementary instruction are used to make the lesson interesting and impressive. These efforts must in time prove effective: encouraging results have been obtained in municipalities, and the knowledge which grows up in the towns spreads to the country.

Steps taken to improve it.

The early efforts of the Sanitary department in rural areas were rendered practically abortive by want of agency and of funds. These needs have to some extent been met by the Local Boards and Village Sanitation Acts. In 1865–71 a number of Acts were passed enabling the levy of local cesses for works of local utility. The proceeds were, however, mainly directed to communications, schools, and dispensaries, and their influence on sanitary improvement was not great. Much more important were the Acts passed in 1883–5 to give effect in rural areas to the local self-government policy of Lord Ripon. They provided a popular agency of District and subordinate boards, which were made responsible for the supply of pure water for drinking purposes, and for the sanitation of the District generally. The Madras Act went farther than the others in making the lowest unit of local self-government the village union, comprising generally a group of villages in which a small house-tax is levied for simple sanitary and cleansing operations, and, in large unions, also for the construction and repair of streets, drains, tanks, and wells. The Bengal Act provided for the establishment of similar village unions, but these did not, as in Madras, form an integral portion of the system. In 1887–8 the Government of India declared that a more systematic effort must be made to deal with the problem. It suggested that a general sanitary village survey should be undertaken, and directed that, when a clear perception had been attained as to what ought to be done, effect should be given to the conclusions by enforcing the provisions of the Local Boards Acts or by special legislation. In accordance with this scheme the Local Boards Acts of Bombay, the United Provinces, and the Central Provinces have been supplemented by special Village Sanitation Acts. The Bombay Act of 1889 provides for the formation of local sanitary committees for

small villages, whose duty it is to provide potable water, keep the village clean, and deal with the accumulation of offensive matter and with nuisances. They are empowered to convict persons infringing the law, and to levy a local tax at a rate not exceeding half the land cess. In larger villages local sanitary boards may be formed for more important works, with sanitary inspectors appointed by the Collector. In the same year an Act was passed for the Central Provinces empowering the Chief Commissioner to create committees, and impose a rate, in villages known to be insanitary, for cleansing, conservancy, and water-supply, and the maintenance of the village roads. In villages in which the United Provinces Act of 1892 has been introduced the Collector may order wells to be cleaned, improved, protected from contamination or condemned, and new wells to be constructed, the cost being recovered from the persons using the well or from the landlord. Loans may be granted for these purposes. The Local Government is also empowered to make rules regarding conservancy and the infliction of penalties. In 1895 the Government of India effected a further improvement by the introduction of a system of village sanitary notebooks. The book contains a permanent record of the sanitary history of the village. It is kept in a printed form by a literate resident and remarks are recorded in it by inspecting officers. This system has been used in some Provinces with considerable advantage.

Present condition of rural sanitation in different Provinces.

At the present time Madras may be considered to be the foremost Province in the matter of rural sanitation. In 1902–3 there were 379 village unions in the Presidency, and the total amount spent on sanitation by local boards (more than 5 lakhs) was much greater than in any other Province. In 1896 the Government of the United Provinces issued a Resolution laying down a sound system of rural sanitation. Each District is divided into small circles, the sanitary condition of which is thoroughly investigated. Endeavour is then made to induce the villagers to observe simple sanitary rules, and to keep their tanks and wells clean and in good repair. Larger works are carried out with money derived from local boards, levied under the Village Sanitation Act, or granted by the Government through the agency of the Sanitary board. In Bombay the Village Sanitation Act was in force in 294 villages in the year 1902. Famine and plague have of recent years checked progress here. In Bengal fifty-seven union committees were in existence in 1902–3, and their income amounted to about Rs. 23,000. They do good work within their sphere, but

have not been tried on a sufficiently large scale to produce any material effect on the sanitary administration. In pursuance of a system inaugurated in 1900–1, the local boards in Patna District have established a regular system of cleansing villages and rural towns. In the Punjab there is no system of minor committees and no special Village Sanitation Act; but the District board agency is displaying activity and doing good work, and the cause of sanitary reform is said to be generally progressing.

Urban sanitation.

The history of urban sanitation in India is closely connected with that of the municipal institutions described in chapter ix. When the Royal Commission of 1863 submitted their report, the Municipal Act in force outside the Presidency towns was a permissive measure of 1850. It was largely used in Bombay, to a less degree in the North-Western Provinces, and hardly at all in Madras and Bengal. In Madras the Municipal Act was to some extent supplemented by voluntary associations for sanitary and other local purposes, and in Bengal by the Town Police Act, part of the funds levied under this Act being applied for conservancy purposes. The appointment of Sanitary Commissioners gave a great impetus to sanitary reform in towns. Municipal Acts were passed for the various Provinces, many new municipalities were formed, and by-laws were framed for conservancy and sanitation. Lord Mayo's financial decentralization scheme of 1870 increased the funds available for municipal work; and in 1871 an important measure was passed (amended and re-enacted in 1879) enabling municipalities to borrow money from the Government, or in the open market, on the security of their funds. From 1876 to 1888 the Government could only afford to lend funds in exceptional cases; but when these restrictions were removed, in 1889, a great advance was immediately made in the prosecution of municipal works. At the same time the execution of such works was encouraged, systematized, and improved by the appointment of the Provincial Sanitary boards and Sanitary Engineers. The Acts framed in 1883–5 in accordance with Lord Ripon's policy were cast in an ampler mould than those which preceded them. The municipal authorities were given greater powers to deal with sanitary problems and were entrusted with larger funds. As they now stand, the Municipal Acts cover practically all matters connected with the health of an Indian town population, such as water-supply, drainage, conservancy, sewage, nuisances, the cleansing of streets and open places, the improvement of insanitary dwellings, offensive trades, burial and

burning grounds, markets, slaughter-houses, and the sale of unwholesome food. In Bombay, the United Provinces, the Punjab, and Burma some provisions of the Municipal Acts are applied to small towns which are not municipalities, and their sanitation is provided for in this manner. The total expenditure on conservancy in District municipalities rose from 25·4 lakhs in 1876–7 to 56·4 lakhs (excluding Upper Burma) in 1902–3. The expenditure on drainage alone shows a rise during the same period from 4·7 to 14·1 lakhs, and that on water-supply from 6 to 34·7 lakhs.

Sewage. Save in a few of the larger towns, there is no water-carriage system for sewage removal, and trenching is commonly adopted. This method requires great care in execution, and in many municipalities it is still carried out in a manner dangerous to the health of the inhabitants. Waste water trickles out of the houses and is carried off by surface drains to discharge into tanks or some convenient stream. The native population use a very small quantity of water in their houses, probably not more than a daily average per head of 1 or 2 gallons, as compared with an ordinary standard of 20 gallons in English cities. But where water-works have been introduced, and the consumption largely increased, the sewage and drainage conditions approach more nearly to those which obtain in Europe. In the search for a means of disposal of refuse the towns of India possessing sewage systems have followed the example set in England. Bombay discharges its sewage into the sea. In Ahmadābād and Karāchi broad irrigation, with subsequent cultivation, has been successfully carried out. The Calcutta sewage is conducted to an outfall in a salt lake five miles east of the city, and that of Benares and Cawnpore is discharged into the Ganges. In recent years successful experiments have been made in a number of municipalities for the disposal of sewage by 'biological' methods, and this system is likely to be more frequently adopted in the future.

Water-works. The construction of water-works, almost entirely by means of funds borrowed from the Government, has been a successful feature of municipal administration. More than eighty municipal towns are now furnished with water-supply systems, many of which are on a large scale and constructed accordance with the most approved modern methods. Bombay was earliest in the field, and had twelve schemes completed before 1890, but they were smaller and less expensive than the large schemes which followed. Apart from these, almost all the works in question have been opened since 1890. On

the whole the largest undertakings have been carried out in the United Provinces. Of the seven large municipal towns there—Agra, Allahābād, Benares, Cawnpore, Lucknow, Meerut, and Bareilly—all except the last have been furnished, at considerable cost, with complete systems of water-supply. Water-rates are levied in these cities under a special Act of 1891. Eight works have been completed in the Bombay Presidency since 1890. The Madras municipalities were slower to perceive the advantage of a good water-supply, but of late years they have taken up the matter with vigour. It is difficult to overestimate the boon which the provision of an abundant and pure supply of water has proved to the inhabitants of large Indian towns. In some cases, however, the improvement in health that might have been expected has not taken place. Good water cannot remove other causes inimical to health, such as bad conservancy and overcrowding, while in some cases the need for proper drainage may have been aggravated by an increased water-supply.

Presidency towns.

The sanitary arrangements in the Presidency towns of Calcutta, Madras, and Bombay are naturally on a more extensive scale than in other places. Each of these cities has been furnished with large water-works and sewage systems, and each employs a numerous sanitary staff. In Bombay, which may be taken as an illustration, the sanitary organization is divided into four main departments—water-supply, drainage, sewage, and conservancy. Each of the first three departments is under an engineer who is subordinate to the principal engineer of the municipality, and the last is under the Municipal Health Officer. Water is derived from three artificial lakes and is passed through filter beds; an elaborate system of sewers carries the drainage and liquid refuse into the sea; and garbage is removed by train beyond the city limits. Much has been done to maintain the Presidency towns in a healthy condition, but it would be idle to declare that the result has been completely satisfactory. When the plague attacked Bombay it found a favourable breeding-place in the crowded tenements where the poorer section of the inhabitants dwelt; when it threatened Calcutta the dirty, and in many respects insanitary, condition of the city was a cause of grave alarm. Strenuous efforts are being made (see chap. ix) to improve the condition of these two cities.

General progress.

On the whole the inhabitants of towns have advanced much more rapidly than the rural population in the appreciation of

forty years ago with what it is now there is good ground for satisfaction.

'Compare, for instance,' says Sir J. Strachey in chap. i of the 1903 edition of his *India*, 'what Calcutta was when Lord Lawrence became Viceroy in 1864 and what it is now. This city, the capital of British India, supplies an excellent type of what has been everywhere going on. The filth of the city used to rot away in the midst of the population in pestilential ditches, or was thrown into the Hooghly, there to float backwards and forwards with every change of tide. To nine-tenths of the inhabitants clean water was unknown. They drank either the filthy water of the river, polluted with every conceivable abomination, or the still filthier contents of the shallow tanks. The river, which was the main source of supply to thousands of people, was not only the receptacle for ordinary filth; it was the great graveyard of the city. I forget how many thousand corpses were thrown into it every year. I forget how many hundred corpses were thrown into it from the Government hospitals and jails, for these practices were not confined to the poor and ignorant; they were followed or allowed, as a matter of course, by the officers of the Government and of the municipality. I remember the sights which were seen in Calcutta in those days in the hospitals, and jails, and markets, and slaughter-houses, and public streets. The place was declared, in official reports written by myself in language which was not, and could not be, stronger than the truth required, to be hardly fit for civilized men to live in. There are now few cities in Europe with which many parts of Calcutta need fear comparison, and although in the poorer quarters there is still much room for improvement, there is hardly a city in the world which has made greater progress.

'I do not mean to say that Indian cities generally were as bad as Calcutta. This was far from being the case, but Calcutta affords, not the less, a good example of what has been and is still going on in India. Illustrations of the same sort might easily be multiplied. In 1865, for instance, in the city of Rangoon, containing at that time more than 100,000 people, with half a million tons of shipping, there was not a single public lamp, no supply of wholesome water, not a single drain except the surface drains at the sides of the streets, and no means of removing the filth out of the town.'

Much, however, remains to be done not only in the prosecution of large works, but also in the improvement of general sanitary conditions. Lack of funds is often a great obstacle to progress. The income of many municipalities is very small, and cannot be greatly enhanced without a burden of taxation which would be felt as oppressive. The outbreak of plague

has drawn prominent attention to existing defects and thus helped towards their removal.

Epidemic disease.

To deal with outbreaks of epidemic disease is an important part of the work of the Medical and Sanitary department. On the occurrence of a serious outbreak of cholera, small-pox, or epidemic fever, special officers are sent to the locality to tend the sick, to supervise such precautions as experience has shown to be most effectual, and to investigate the cause and history of the epidemic. The enormous religious assemblages which take place periodically in many places throughout India are sometimes sources of epidemic disease, and careful sanitary arrangements are made to lessen this danger.

Plague.

During the last few years India has suffered from a widespread epidemic of plague. It is not the first occasion within modern times that this terrible disease has visited India, but no previous outbreak of which we have record attained the proportions of the epidemic which still devastates widely distant parts of the peninsula. The constant and rapid communication which now takes place between all parts of the country has no doubt greatly assisted the spread of the disease. The first trustworthy information of the occurrence of plague in India dates from the year 1812, when an epidemic broke out in Cutch, spread into Gujarāt and Sind, and did not die out until after the lapse of ten years. In 1828–9 a disease showing all the symptoms of plague is reported to have been prevalent at Hānsi, in the Hissār district of the Punjab. In 1836 another epidemic occurred at Pāli in the Mārwār State of Rājputāna, and spread over a considerable area, causing great loss of life. The present epidemic broke out in the city of Bombay during the autumn of 1896. During the first year it was, apart from a few small outbreaks, confined to the Bombay Presidency. In the second year it appeared in several other Provinces and States; and it has since been present in more or less severe epidemic form in Bengal, Madras, the United Provinces, the Central Provinces, the Punjab, Mysore, Hyderābād, and Kashmīr. Up to the end of 1903 more than two million deaths had been reported, and the actual mortality must have been much greater. At the outset stringent measures were taken with regard to the segregation of the sick and those who had been in contact with them, the disinfection and evacuation of infected localities, and the observation of travellers from infected places, in the hope that the disease might be thus stamped out. The long duration and great extent of the epidemic made it impossible

to continue these measures in the manner in which they were started; but every aid is still given to the inhabitants to take the precautions which have been found most efficacious, and facilities are afforded to every one who wishes to be inoculated by the method which has been worked out by M. Haffkine. The greatest pains are taken to prevent the contamination of the shipping leaving Indian ports, and the measures for outward-bound vessels recommended by the International Sanitary Conference convened at Venice in February, 1897, have been carried out with such good effect that extremely few cases of plague have reached Europe.

Laboratories.

The Government of India has long recognized the great importance that attaches to the scientific study of tropical disease. In no country is such study likely to bear greater fruit in the alleviation of human suffering. Valuable work has been done from time to time by medical officers, as, for instance, the investigation into the propagation of malarial fever by certain species of mosquitoes conducted by Major Ross, late of the Indian Medical Service. Financial and other difficulties long prevented the Government from realizing more fully its wish to develop this branch of medical work, and it is only recently that a general scheme has been devised. Under this scheme there is to be a central laboratory at Kasauli near Simla, and Provincial laboratories at the head-quarters of the principal Local Governments. The central laboratory will be devoted to research, and to the preparation of protective vaccines and curative sera; and while research will also be an object of the Provincial laboratories, these will be mainly occupied with ordinary bacteriological work, such as the determination of the specific nature of disease in doubtful cases, the investigation of the cause of epidemic outbreaks, and generally the supply of expert assistance to medical officers. The instruction of young officers, and the general development of the study of bacteriology and hygiene, are an important part of the scheme.

Pasteur Institute.

In August, 1900, an Indian Pasteur Institute for the treatment of persons bitten by rabid animals was opened at Kasauli. This institution is under private management, but is aided by the Government. The history of even its first year's work was a record of remarkable success: 321 patients sought relief and, excluding seven cases in which the treatment began too late, only three cases terminated fatally. At least one deplorable case has, however, occurred which shows that persons bitten by rabid animals at a great distance from Kasauli may be

unable to reach the institute in time for the treatment to be successful. A second institution is now being established at Coonoor, in the Madras Presidency, on the lines of that at Kasauli.

An accurate system of registering vital statistics is the only sure foundation for efficient sanitary administration. When the Royal Commission of 1863 submitted their report there was practically no registration outside the Presidency towns. In accordance with their recommendation, arrangements were made to register deaths in towns and rural areas, through the agency of the police and of the municipal and subordinate revenue establishments. In Bengal, where the bulk of the Province is permanently settled and the rural revenue establishments are weak, the difficulties proved greater than elsewhere, and a beginning was not made until 1870, by which time registration of deaths was in full force in other Provinces. The registration of births presents more formidable obstacles. Official inquiry regarding the birth of children was apt to excite religious or caste prejudice, or superstitious fear, and the ignorant were suspicious of the motives which prompted an inquisition whose object they could not understand. Birth registration was started in Bombay in 1848, and in Madras about 1855; in other Provinces it began at different times between 1870 and 1880, at first in selected areas and afterwards throughout the country. By 1882 it was general in all Provinces except Bengal, where, until 1892, it was only in force in selected towns. The Government of India made a general survey of the results in 1894, and found that in the United Provinces registration was carried out with some approach to accuracy; that it was fairly well done in the Punjab, the Central Provinces, and Berār; and that Bombay, Madras, and Assam came a long way behind. In Bengal the figures did not go far back enough to enable an estimate to be made, but the reports of the Sanitary Commissioner with the Government of India show that registration was inaccurate there. Improvements have been made since, chiefly in the direction of closer supervision, and although the results are still imperfect they are better than they were formerly. Registration of the cause of death is more imperfect than the record of the fact of its occurrence. This is necessarily so because, even in large towns, the great majority die without having been seen by any person competent to diagnose the case.

Vital statistics. History.

Under the existing system registration is compulsory in municipalities under municipal or special laws or by-laws.

Existing system.

The father and mother of a new-born child, and the nearest relative or other person present at the death of a deceased person, are primarily responsible for reporting the occurrence to the registration office or town police. In the Presidency towns officers are stationed at the places of burial and cremation in order to check the returns. In Calcutta and Bombay medical practitioners are required to certify the cause of the death of patients, but in Madras this duty has as yet been laid only on Government medical officers. Municipalities have in many cases been lax in enforcing the law, and the Sanitary Commissioner with the Government of India stated, as recently as 1896, that registration in municipalities is more defective than in rural tracts. Outside municipal limits registration has not in general been made legally compulsory, as it is feared that the rural population in many parts of India is not ripe for such a measure. In Madras a compulsory Act was passed in 1899, and is being tentatively introduced into large villages and small towns. In Madras and Bombay rural births and deaths are recorded by the village officials, while in Bengal, the United Provinces, the Punjab, and the Central Provinces village watchmen report to the police-station. The information is sent to the District head-quarters, and eventually to the Provincial Sanitary Commissioner.

Vaccination.

A great work has been accomplished in India in the protection of the people from the scourge of small-pox. When the matter first received attention, inoculation (an Eastern discovery) was the common practice. Many persons were protected by this means, but carelessness in its use is said to have assisted in the spread of the disease. Vaccination had been started before the appointment of the Royal Commission of 1863, but it was badly done and the people were hostile to it. The Commission drew prominent attention to the subject and a great improvement was soon effected. A large staff was employed under efficient supervision, and the utility of the process gradually became evident to a considerable portion of the population. In 1880 an Act was passed for the compulsory vaccination of children in municipalities and cantonments. It was introduced with caution, an application from the majority of the municipal commissioners being a necessary condition. Compulsory vaccination is now enforced in all municipalities in Bengal[1], the United Provinces, Madras, and Burma; in most municipalities in the Central Provinces; and in some in the Punjab. In Bombay vaccination is compulsory only in the

[1] Except Asansol and Samāstipur.

Presidency town, and in Karāchi and other places in Sind. Each Province has a large establishment of public vaccinators, with an inspecting staff under the Deputy Sanitary Commissioners. In Bengal private vaccinators are licensed, and are permitted to receive fees. In municipalities the vaccinators are maintained by the municipal authorities, and in rural areas by the Government or the District boards. More than 2 per cent. of the work is done by the ordinary dispensary staff. There has been a great increase in the annual rate of vaccination and in the proportion of protected persons (see Table II at the end of this chapter). During 1864–5 only 556 persons were vaccinated in Bengal, the United Provinces, and the Punjab; in 1902–3 more than five millions were successfully vaccinated in the same Provinces. In the whole of British India the proportion of persons who underwent vaccination to the total population was 27 per 1,000 in 1880–1, and 35 in 1902–3, while the true normal birth-rate may be taken as approaching 50 per thousand. The proportion of vaccinations to births varies greatly in different Provinces, being best in the Punjab and worst in Bengal. In parts of the latter Province the people are still prejudiced and hide their children from the vaccinators. A great improvement has been made in recent years by substituting calf-lymph vaccination for the arm-to-arm method. This process was systematically introduced in 1890. Dépôts for the manufacture and storage of calf lymph have been established, and the use of human lymph is being more and more superseded.

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TABLE I

Statistics of Public Hospitals and Dispensaries under Government Control

	1880.	1890.	1900.	1902 *.
Institutions . .	1,212	1,736	2,364	2,456
Patients †— . .				
In-door. . .	217,000	255,000	381,000	373,000
Out-door . .	7,192,000	12,722,000	20,524,000	22,039,000
Total	7,409,000	12,977,000	20,905,000	22,412,000
Surgical operations performed . .	372,219	604,140	831,806	895,226
Income † :—				
From Government .	Rs. 19,03,000	Rs. 20,73,000	Rs. 27,76,000	Rs. 29,89,000
From Municipal and Local Funds. .	12,90,000	22,07,000	31,64,000	37,15,000
From subscriptions, endowments, fees, and other sources .	5,02,000	5,69,000	13,36,000	14,65,000
Total	36,95,000	48,49,000	72,76,000	81,69,000

Statistics of other Hospitals and Dispensaries in 1902

	Institutions.	Patients †.
Private independent institutions . . .	480	3,007,000
Railway, Police, &c., hospitals . . .	506	1,111,000
Total	986	4,118,000

* Ajmer-Merwāra and British Baluchistān are excluded.
† The statistics under these heads are given to the nearest thousand.

TABLE II

Statistics of Vaccination

	1880-1.	1890-1.	1900-1.	1902-3.
Persons vaccinated * .	4,415,000	6,496,000	7,860,000	8,411,000
Percentage of total number of persons vaccinated to population .	2·7	3·1	3·4	3·5
Percentage of successful vaccination in each 100 estimated births .	19·9	27·5	33·9	39·1
Cost of special vaccination establishment * .	Rs. 7,50,000	Rs. 10,14,000	Rs. 11,53,000	Rs 11,66,000

* The statistics under these heads are given to the nearest thousand.

CHAPTER XV

SURVEYS

The earliest surveys and maps.

THE first-known attempt at a record of the revenue, population, produce, or similar statistics of any considerable portion of India was made, during the latter half of the sixteenth century, by Akbar, and the inquiries he then set on foot may be said to constitute the earliest step towards the formulation of geographical knowledge in India. He divided his territories into twelve *sūbahs* or provinces, which practically included the whole of India north of a line drawn from Calcutta to Bombay, with the addition of Kābul, while later conquests added three more *sūbahs* in the Deccan. The boundaries and extent of these provinces were laid down with as much accuracy as was consistent with the vague standards of measurement then available. Akbar, while giving fairly concise descriptions of the boundaries of his *sūbahs*, did not embody them in the form of a map, but caused them to be recorded in writing, together with full statistical details of their resources, and these particulars may be found in the *Ain-i-Akbarī*. To the sea captains of the East India Company, those 'noted seamen of Wapping,' are due the earliest plotted and recorded surveys of India. Their work naturally took the form of coastwise charts, or 'plotts,' as they termed them, around their chief ports of call, such as Surat and others on the Malabar coast, and the earliest examples thereof date from the first decade of the seventeenth century. Unfortunately most of the log-books of voyages prior to 1855 were either burnt in Calcutta about that year, or were similarly destroyed in 1860 at the India Office, so little light can now be thrown on the work of the gallant seamen of those early days, though the Hakluyt Society has preserved certain portions from oblivion[1].

The earliest attempt at a modern and accurate map of India was that of the French geographer D'Anville, who, in 1751–2, compressed into that form all the available knowledge of the time, whether derived from the routes of travellers or from

[1] Marine surveys are treated in an Appendix to this chapter.

rough coast charts. In this map he also incorporated the work of certain Lāmas between China and Tibet and around the sources of the Ganges, as well as the information derived from early travels of the eighteenth century in those parts. Major James Rennell, who had served under Clive, made a further advance both by his personal exertions in surveying, continued until 1782, and by the publication of his *Memoir of a Map of Hindoostan*, which first appeared in 1788. His *Bengal Atlas*, based on his own work, was published in 1781, on the scale of five miles to the inch, covering an area of about 27,000 square miles in Bengal, Bihār, and the Upper Provinces. The value of this map is now only historical, but his large-scale surveys of the Ganges and Brahmaputra are still of interest as showing the changes which have taken place in the courses of those rivers. The method of surveying adopted by Rennell was to fix the positions of a considerable number of stations by astronomical observations for latitude and longitude, and to measure the intervening distances with the chain or with the 'measuring-wheel.' The correct determination of longitudes was his chief difficulty; and although he utilized the results of the work of several independent observers at Madras, Calcutta, and elsewhere, his maps, judged by later standards, can only be considered as approximations to accurate cartography. Rennell was certainly the 'Father of Indian Geography,' and his *Memoir* is a laborious attempt to reconcile a vast array of conflicting geographical data. His field-work was continued in Madras, the Deccan, and Western India by his assistants and successors, Colonels Call, Pearse, Wood, and Reynolds. As materials accumulated, attempts were twice made to compile a general map of India. In 1787 Colonel Call of Madras had nearly completed such an atlas in twenty sheets, but returning home in 1788, he died soon after, and his map was lost. Colonel Reynolds of Bombay completed and sent home a *Great Map of India*, in 1798. It was never published, and was, presumably, destroyed on the dissolution of the East India Company.

The Great Trigonometrical Survey. Initiated by Colonel Lambton.

But at the end of the eighteenth century a man was found in India destined to revolutionize the survey methods then in vogue and to place them on a scientific basis. This was William Lambton—then Captain in the 33rd Regiment, commanded by Colonel Arthur Wellesley, afterwards Duke of Wellington—who had studied mathematics under Charles Hutton. Towards the close of 1799, Lambton, with the approval of his commanding officer, submitted a project for a geographical survey of Southern India to the Governor of Madras. In the

following year a more definite scheme was called for, and Lambton's reply is the earliest document in the records of the Trigonometrical Branch of the Survey of India. In this letter he points out the fallacy of the systems of survey then followed in India, which ignored the curvature and form of the earth. He advocates the measurement of a base-line as a 'datum'; triangulation and its correct computation; measurements to determine the length of a degree on the meridian and perpendicular; and he refers to pendulum experiments and Newton's investigations regarding the figure of the earth. He proposes to carry out his work with a view to the requirements of geodesy, and to follow the method adopted in the English Ordnance Survey which had been commenced by General Roy in 1784. Lambton's project was favourably received, and he commenced work in 1800, the instruments available being a steel measuring-chain of 100 feet divided into forty links of $2\frac{1}{2}$ feet each, a 5-foot zenith sector, and a transit instrument by Troughton. The first base of 7·43 miles was measured near Bangalore with the chain; and for the next two years Lambton was employed in fixing, by triangulation, a large number of points in Mysore, to serve as a basis for the topographical survey then in progress under Colonel Colin Mackenzie. April 10, 1802, is the date of the actual commencement of the Great Trigonometrical Survey of India, when Lambton, with new instruments, including a 36-inch theodolite, started the measurement of a base-line near Madras for the determination of the length of an arc of meridian. Between 1800 and 1823 Lambton was continuously employed, practically single-handed, on triangulation; and during that period he threw a network of triangles, verified by several chain-measured base-lines, over the Peninsula south of latitude 18° N., omitting the plains of Tanjore. He also carried a chain of principal triangulation, approximately along the meridian 78° E. from Cape Comorin to near Ellichpur, through thirteen degrees of latitude; and this chain, which now extends through twenty-two degrees of latitude from Cape Comorin to the Himālayas, is known as the Great Arc Series. Lambton's series of triangles along the parallel 13° N., from Mangalore to Madras, was the first attempt at a longitudinal arc. By its means he detected an error of 40 miles in the breadth of that part of the Peninsula as laid down by Rennell, and found great inaccuracies in the positions of the chief towns.

In 1818 the Trigonometrical Survey, which had up to that date been under the Madras Government, was transferred to

the immediate control of the Governor-General, and the records and plans were removed from Madras to Calcutta. Colonel Lambton died in 1823, aged sixty-seven, at Hinganghāt, 50 miles from Nāgpur, engaged to the last on the prosecution of the great work he had initiated. His death marks the close of the first period of the Trigonometrical Survey, as his work has little in common with subsequent operations. For geodetic purposes it has shared the fate of similar contemporaneous operations in Europe, since all the measurements have had to be revised as instruments and methods improved; but for geographical requirements, as bases for topographical and other surveys, it is still, and will remain, most valuable.

Development by Sir G. Everest.

Lambton was succeeded in the charge of the Great Trigonometrical Survey by Captain (afterwards Sir) George Everest of the Bengal Artillery. In 1830 Captain Everest, who had spent five years in England studying the best methods of prosecuting the survey, returned to India, bringing with him new instruments of the latest pattern and Colby compensation bars for the measurement of base-lines. The greater portion of the principal triangulation in India proper has been carried out with the 36-inch and 24-inch theodolites then procured, and the ten verificatory base-lines have been measured with the Colby apparatus. Lambton had proposed to cover India with a network of triangulation, utilizing the Great Arc Series for geodetic measurements, but Everest, in 1830, recommended the substitution of the 'gridiron' system. This, briefly, consists of meridional and longitudinal chains of triangles, the former at intervals of one degree apart, the latter following the parallels of Calcutta, Bombay, and Madras across India. The external chains or series were to follow the coast-line and the British frontiers. The whole of this triangulation in India proper rests on ten base-lines, of which five are in the Great Arc Series and the others at Karāchi, Attock, Sonakhoda (near Jalpaigurī), Calcutta, and Vizagapatam. The standards of length with which the Colby bars were compared during the measurement of the base-lines, were two 10-feet iron standards, a standard steel foot, and two 6-inch brass scales. One of these iron standards was employed at the measurement of all ten base-lines between 1832 and 1869, while the other has been compared with the Ordnance Survey standard in England and with several continental standards of length. Everest's programme of operations, based on the 'gridiron' system, received the approval of the Government of India and the Court of Directors, and its main principles have been followed

in all subsequent operations of the great Trigonometrical Survey. Everest further completed the Great Arc Series, closing it on the Dehra Dūn base by continuing the main triangulation northwards from the point near Ellichpur to which Colonel Lambton had brought it. He likewise completed the Bombay Longitudinal Series, and revised a considerable portion of Lambton's work on the Great Arc, remeasuring the bases. The design and partial completion of the meridional series of the 'gridiron' in Bengal and Bihār are also due to him.

By Sir A. Waugh and General Walker.

Sir Andrew Waugh, who became Surveyor-General and Superintendent of the Trigonometrical Survey in 1843, on the retirement of Sir G. Everest, designed a great quadrilateral figure of chains of triangulation, which was to enclose and intersect the lately-conquered territory of the Punjab. It was between the years 1845 and 1850, while the main chain of triangles which runs along the base of the Himālayas from Dehra Dūn to Jalpaigurī was in progress, that the correct heights of the main Himālayan peaks were determined. Rennell, in his *Memoir*, notices their great elevation, but the first attempts to measure them were those of Colonel Crawford (Surveyor-General in 1814–6) while in Nepāl in 1802, and again in 1805, during the course of a route-survey from Bihār to Rohilkhand.

General J. T. Walker succeeded Sir Andrew Waugh as Superintendent of the Trigonometrical Survey in 1861, when the two offices held by the latter were separated, and Colonel H. L. Thuillier was appointed Surveyor-General. Under the guidance of Walker the geodetic work of Lambton and Everest was widely expanded. The Vizagapatam, Bangalore, and Cape Comorin base-lines were remeasured, while portions of the Great Arc and of the Calcutta-Karāchi Longitudinal Arc were revised. The execution of sixteen principal series of the 'gridiron,' and the complete revision of the Great Arc, saw the practical close of main triangulation in India proper, and supplied fresh data for determining the figure of the earth. The deduction of the work as a whole entailed the most elaborate calculations that have ever been undertaken in geodesy. The time had arrived for determining the procedure by which the fallible values of the several angles and base-lines, as obtained by actual measurement on the ground, were to be rendered consistent; and final values had to be determined for the lengths and azimuths of the sides of the triangles, and also for the latitudes and longitudes of the stations. The chains divide

the triangulation into five sections, four of which (two on either side of the Great Arc) may be termed quadrilaterals, the fifth in the South being trilateral. At the corners of the quadrilaterals and apex of the trilateral figure are the base-lines. The four quadrilaterals meet at Kaliānpur, in Central India, on the Great Arc, in approximate lat. 24° N. long. 78° E. This point was employed by Everest as the central or reference station of the triangulation[1]; and hence the quadrilaterals are distinguished as North-east, South-east, North-west, and South-west, from the corresponding cardinal points, the trilateral figure being known as the Southern Trigon. Walker decided to treat the reduction of these figures separately, commencing with the North-west quadrilateral, since it was not considered possible, from the extent of the operations, to reduce the whole work in one mass as theoretically required. The reductions were commenced under Walker in 1869, and completed for the five figures in 1890. Their results are embodied in the volumes of the *Account of the Operations of the Great Trigonometrical Survey of India*. Nine of these volumes were published by General Walker, containing full reports of the nature and general procedure of the survey, descriptions of all the instruments employed, complete details of the actual facts of observation and methods of reduction, and the results arrived at after the final reduction of the operations. General Walker was also largely responsible for the initiation of the Pendulum, Longitude, Tidal, and Levelling Operations, and in 1873 he brought out a map of Turkistān and Central Asia compiled from every available source. At the time of his retirement in 1883, the principal triangulation had been extended down the coast of Burma, and an eleventh base-line measured at Mergui. It may here be noted that the difference between the measured length of this base-line, and its length as computed through nearly 1,000 linear miles of triangulation, amounted to only 3·4 inches. The main triangulation is now being carried on in Burma, but the large 36-inch theodolites have given place to lighter and more modern 12-inch instruments, while for the measurement of base-lines the Colby bars will probably be replaced by the apparatus devised by M. Jäderin. By this method distances are measured with a fine nickel-steel wire, which suffers practically no expansion or contraction under varying temperatures.

[1] Up to the year 1840 the Madras Observatory was adopted as the datum to which the latitudes and longitudes of all stations of triangulation were referred.

A brief description may be given here of the general methods adopted in carrying on the Great Trigonometrical Survey. For the principal triangulation the 36-inch or 24-inch theodolites were used, and the stations of observation were made as solid and permanent as possible. On hills they were generally masonry or brick platforms surrounding, but detached from, a central pillar on which the instrument rested. In the plains the stations at first took the form of brick towers from 20 to 60 feet in height with a central isolated core or pillar. Mark-stones, engraved with a minute dot inside a small circle, were placed on the ground-level and on the top of the central pillar, vertically above one another; but after 1852 the towers were made hollow and only a mark-stone at ground-level was embedded. During Lambton's time, the objects marking the stations were opaque, such as flags or poles, and he invariably carried out his angular observations in the daytime and during the rainy season owing to the greater clearness of the atmosphere at that period. Everest introduced the system of observing at night to lamps, and during the day to heliostats, and changed the season for field-work to the cold weather. These methods have since been invariably followed. A careful preliminary triangulation, known as the approximate series, with a smaller instrument invariably precedes the advent of the great theodolite; and by its means the positions of stations are determined, towers built if necessary, and everything prepared for the final rigorous determination of the angles. In addition to the principal chains of triangulation, others, known as secondary series, were largely employed: they were executed with smaller instruments, and started from one side of a principal triangle of a series, closing on another, possibly of a different series. Their stations, and the large number of subsidiary points fixed therefrom, served as a basis for topographical and revenue surveys.

Survey stations.

The principal operations of the Great Trigonometrical Survey have, from their commencement, furnished data for investigating the figure of the earth, and the results have proved of the greatest value, as they have been obtained within parallels of latitude which are much nearer to the equator than those within which any other geodetic operations have been undertaken in other parts of the globe with the exception of the small arc in Peru. The earliest operations of a geodetic nature in India were Lambton's and Everest's, and these were necessarily meridional, owing to the difficulty of determining the longitude instrumentally with sufficient accuracy. For measurements of the meridian it was necessary to determine only the

Astronomical latitude and longitude operations.

correct latitudes of the terminal stations, an operation which can be carried out with the greatest accuracy. It is needless to describe in detail the various instruments employed, beginning with Ramsden's original zenith sector and ending with the present-day zenith telescope, as all these are designed for the same purpose, namely, the determination of the absolute zenith distance of a star. The success of such operations depends either on a plumb-line or on a level. Herein lies their weakness, for the plumb-line is attracted by mountain masses, and it is therefore practically impossible to determine an absolute latitude. To avoid, as far as possible, this cause of uncertainty, the latitude observations in the neighbourhood of the Himālayas were, until recent years, left out of any discussion on the figure of the earth; but recent investigations have shown that this is a mistaken policy, and at the present day latitude observations are being carried into the heart of those mountains.

The advent of the electric telegraph allowed of the measurement of differential longitudes between certain stations of the survey which contribute determinations of a number of longitudinal arcs to supplement and combine with the meridional arcs. The general procedure for the determination of differences of longitude by telegraph is as follows: An observer is employed at each of two stations connected by wire. Each observer, provided with a transit telescope, a chronograph with accompanying electrical apparatus, and an astronomical clock, first makes the most accurate determination possible of the error of his clock. Then at certain times (both observers working in concert) they determine, by means of electric signals transmitted between the stations, the absolute differences between their clocks at a given instant; thus the difference of longitude between the stations, or the 'arc of longitude,' becomes known. The system adopted by General Walker was to select three stations of the main triangulation—A, B, C—near the telegraph, and so placed as to form a symmetrical triangle. After measuring the arcs C A and A B, the arc C B was measured independently as a check. In this way, a network of fairly symmetrical longitude triangles has been thrown over India; and in 1894–6 the arc Madras-Greenwich was measured through Karāchi, Bushire, Teherān, and Potsdam, thus giving a final value to the longitude of Madras. The previous value, depending mainly on astronomical observations, was found to be about two and a half minutes of arc in error, which had the effect of placing India nearly three miles too far from Greenwich.

With a view to determining as accurately as possible the latitudes, longitudes, and azimuths of the stations of any system of triangulation, it is necessary that the polar and equatorial axes of the terrestrial spheroid should be correctly known, while a certain ratio must be adopted for its ellipticity. This last may be determined by observing the pendulum. As the force of gravity increases from the equator to the poles, a pendulum which makes a given number of vibrations in a given time at the equator will make a greater number as the latitude increases. The operation consists in determining the number of vibrations which a given pendulum makes in twenty-four hours at selected stations. Previous experiments had been made near the coast or on islands, and it was desirable that they should be continued in the interior of a continent. These operations were initiated by Captain Basevi, R.E., of the Trigonometrical Survey, in 1865, and during the course of the next five years he continued them at a large number of stations all over India, nineteen of them being on the Great Arc. He sacrificed his life in the cause of science, dying of exposure (1871) while engaged in continuing his observations in high latitudes on the Tibet frontier. One result of these experiments was to prove that the density of the strata of the earth's crust under and near the Himālayas is less than that under the plains, and another that the force of gravity appears to be in defect at inland stations as compared with coast stations in similar latitudes.

Pendulum operations.

In 1856 Sir A. Waugh instituted a series of spirit-levelling operations with a view to determining the heights of the terminal stations of the interior base-lines directly from sea-level. These, as well as the heights of the stations of the principal triangulation, had been measured by vertical observations with the large theodolite, and had been referred to Lambton's datum, the sea-level at Madras, but owing to the length of the chains of triangles a check was necessary. The earliest spirit-levelling work, about 1860, was the connexion of the Attock, Dehra Dūn, and Sironj (Central India) base-lines with the sea-level at Karāchi [1]. Since then lines of levels have

Tidal and levelling operations.

[1] The discrepancies between the heights, as determined by spirit-levelling and trigonometrically, were:—

At Attock	3 ft. 2 inches.
„ Dehra	5 ft. 1 inch.
„ Sironj	2 ft. 1 inch.

In the line which connects Karāchi with False Point, the error is under 9 inches per 1,000 miles.

been carried along the principal railways and roads over the greater portion of the peninsula, and are still in progress, affording a vast number of accurately determined heights which are of the greatest value to canal, road, and railway engineers. Levelling work has of late years been combined with tidal operations. Tidal observations had previously been taken at Kidderpore dockyard (Calcutta) from 1806 to 1827, in Bombay harbour from 1832, and at Karāchi from 1857 until 1865; but the first systematic record of their results dates from 1874. Such work, while enabling a datum level to be fixed for survey purposes and aiding navigation, is also of great scientific interest. The results of the Indian observations were largely used by Professor Darwin in his numerical estimate of the rigidity of the earth. The tidal stations extend completely around the coasts of Burma and India and up to the Red Sea[1].

The Magnetic Survey.

The Magnetic Survey of India and Burma, now being undertaken, was initiated by Professor Rücker, F.R.S., through the Royal Society in 1897. The work was commenced in 1901, and will be completed about 1907. Observations of dip, declination, and horizontal force are being taken at stations which are, on an average, forty miles apart, while self-recording magnetographs are being established at Dehra Dūn, Barrackpore, Rangoon, and Kodaikānal, and the Magnetic Observatory at Colāba is co-operating. In addition, the secular change will be studied at some twenty-five stations symmetrically situated.

Early topographical and geographical surveys.

Prior to the year 1800, topographical work was as a rule confined to the results of road and route sketches of the roughest description, though Rennell had produced a detailed survey of the Ganges and Brahmaputra rivers. Early in the nineteenth century Colonel Colin Mackenzie introduced, in Southern India, a system of detailed topographical survey, based on a triangulation of some sort; and while Lambton was engaged on his work in Madras, Mackenzie had independently measured bases in Mysore and connected them by triangulation. Mackenzie's labours resulted in a topographical survey on the 1-inch scale of over 40,000 square miles in Mysore and the adjacent districts, and it was on this survey that the plane-table was first employed in India. Its form, however, and method of use differed materially from those now in vogue.

[1] Full details regarding the tidal observations, with descriptions of the tide gauges, are to be found in vol. xvi of the *Account of the Operations of the Great Trigonometrical Survey of India*.

The present shape and methods of employing the plane-table were initiated by Captain D. Robinson of the Topographical Survey in 1860. The invention of the plane-table is ascribed to Pretorius, in 1537; but the first published description appears to be that of Leonhard Zubler, in 1625, who ascribes the 'beginning' of the instrument to one Eberhart, a stone-mason [1]. This instrument in its rougher form (practically a drawing-board 30 inches by 24, connected to a tripod stand by a clamping screw) has been employed for the insertion of all topographical detail on the Indian surveys. A ruler 30 inches long with upright sights, a clinometer for measuring angles of elevation or depression and thus determining the relative height of each 'fixing' of the table, and a pencil are the only instruments used with it. In America, and elsewhere, its form has been greatly elaborated, and it is even employed for triangulation, but in India it has never been allowed to trench on the legitimate use of the theodolite. From the period of the early Madras surveys until 1860 it was a smaller instrument, 16 inches square, and the principles of interpolation and intersection as introduced by Robinson were not known, nor were the capabilities of the instrument fully developed or understood.

The earliest surveys were generally accompanied by '*Memoirs*,' heavy volumes which contained a mass of details, statistical, historical, and descriptive, for the area embraced in the map. By 1820 full materials for a map of the Peninsula south of the Kistna river, based chiefly on Lambton's trigonometrical survey, were available. In Bombay, route surveys by compass and 'perambulator' (measuring-wheel) were carried out, between 1813 and 1820, in Gujarāt, Cutch, and Kāthiāwār, and in portions of the Deccan, but none of this work was based on triangulation. In Northern India the question of the sources of the Ganges led, in 1808, to a careful survey of that river, in continuation of former work, from Hardwār to near Gangotrī. The only knowledge available, at that time, of the Upper Himālayas and of Tibet was derived, through the Jesuit missionaries, from Chinese sources and the travels of Lāmas. This information, embodied in the maps of D'Anville and Rennell, remained the only authority until the journeys of the native explorers, the first of whom were trained and sent out by Captain Montgomerie of the Great Trigonometrical Survey in 1861. The breaking out of the Burmese War in 1824 led to the acquisition of much valuable geo-

[1] *Report, United States Coast Survey for* 1865.

graphical knowledge, which was not materially improved in the north of the Province until after the annexation of Upper Burma sixty years later.

The Court of Directors determined in the year 1823 on the publication of a complete *Indian Atlas*, and, when the plan of a general survey was under discussion, invited the opinion of the veteran geographer Rennell as to the most suitable basis and form thereof. He advocated a continuance of the old method, i.e. the astronomical determinations of latitudes and longitudes at selected spots and the insertion of detail by compass and measuring-wheel. Fortunately for the Indian surveys this view was not upheld, and Lambton's triangulation was selected as the framework on which all future topographical and revenue surveys were to be based. Major Rennell subsequently changed his views and agreed to the trigonometrical basis of survey work.

Subsequent progress.

Up to 1830 the prosecution of topographical surveys in India was, save in Madras, desultory and spasmodic. There was no definite organization or combination between the different Presidencies; and, although in that year Sir G. Everest combined the appointments of Surveyor-General and head of the Trigonometrical Survey, the absorbing nature of the more exact description of work somewhat militated against the progress of topographical operations for the next thirteen years. The period of Sir A. Waugh's administration of the combined offices (1843–61) marks a great advance in this respect. The revenue surveys, too, of that period, which were all connected with the Great Trigonometrical Survey and based on a more rigorous system of traversing initiated by Major Thuillier, very nearly approached topographical work in the results of their final mapping. The ideal revenue survey should be one which, executed throughout on accurate principles and supplying complete information for settlement purposes, should also furnish materials for the compilation of general or topographical maps. Unfortunately, the earlier revenue surveys were conducted on varying principles in different parts of India and did not comply with this standard. The early topographical surveys were carried out in the Native States and the non-regulation British Provinces, and were confined to hilly or broken ground where the chain was useless, while the revenue surveys on larger scales were extended over the richer lands of the plains. Such topographical surveys, based on or extended from the main series of triangulation, were those of the Nizām's Dominions (1816–56), of Ganjām

and Orissa (1853–77), of Kashmīr (1855–64), of the Punjab Salt Range (1851–59), and of the Simla Hill States (1847–54), which last was carried on as the main triangulation progressed. Though the standard scale of the topographical survey maps is 1 inch to the mile, the areas above mentioned were mainly surveyed on the ½-inch scale, while in British territory the scale is at times increased to 2 inches to the mile, and to 4 inches for forest surveys. The scales of the revenue and cadastral surveys vary between 4, 16, and 32 inches to the mile, the 16-inch scale being generally adopted.

Method of operations. It is not necessary to attempt, nor will space allow, a detailed description of the progress of topographical surveys over the 2 million square miles of India. A short account of the methods of work and organization of a topographical survey party, with examples of surveys carried out over mountainous and forest-clad tracts, may however prove of interest. The initial elements given for each topographical survey station are its latitude, longitude, height of ground above sea-level, and height of platform or tower. Moreover, the lengths of the sides of every triangle are given in miles and feet; the log-value of distance in feet is also given, as well as the mutual azimuths or true-bearings of the stations from each other, and of all other stations visible therefrom. These details are to be found in the *Synoptical Volumes* prepared for each series or chain of triangles. A topographical party consists of one or more triangulators, with computers, draftsmen, and several plane-tablers. The triangulator, basing his work on the initial elements of the Great Trigonometrical Survey, after a preliminary reconnaissance for the selection of his stations of observation and intersected points, throws a network of triangles over the ground to be surveyed, thus providing a large number of fixed points, with their heights, from which the plane-tablers fill in all topographical details. Various styles have been adopted in the Indian surveys for the representation of mountainous and hilly ground. On the smaller scales vertical or horizontal hill-shading, or 'hachuring,' is employed; and on the larger scales contouring, based on a number of heights determined by the clinometer at each fixing of the plane-table, the vertical distances of the contours varying with the scale. In the earlier surveys, such as those of the Salt Range or Kashmīr, the hill features were shown, in an artistic and realistic manner, by means of 'brush-shading' in Indian ink; but on the introduction of photozincography for map reproduction in 1866 this method was discontinued, as the brush-work could not be

reproduced by photography. Now all hills are represented by pen lines whether the detail be contoured or hill-shaded.

The earlier topographical parties (1850–80) consisted of an officer in charge, one or two military assistants, and a dozen or so European, and one or two native, surveyors. The introduction of the native element into such parties has been of gradual growth. At the period now mentioned the triangulation and its computation were usually carried out by the officer in charge or by his military or civil assistants, the plane-tabling and fair-mapping being entirely the work of the European surveyors. But the number of native surveyors was gradually increased; and the present organization of a topographical party may be described as one officer in charge, one or two junior military officers, four or five officers of the Provincial service[1], and twenty to thirty native sub-surveyors, who are traversers, plane-tablers, and draftsmen. The duties have correspondingly changed, the triangulation being now carried out by an officer of the Provincial service, while the time of the officer in charge is wholly occupied in testing and checking the work of the plane-tablers, in which work the officers of the Imperial and Provincial service also assist, each of the latter having charge of a detachment of plane-tablers.

In early days the parties usually assembled at Dehra Dūn, and thence marched the whole way to the district allotted for survey. A typical case may be taken of a party 'recessing' at Mussoorie, whose work lay in Rājputāna, on or near the Arāvalli hills. Towards the end of September it would assemble at Dehra, and, after collecting its transport of two or three elephants and seventy to eighty camels, would start on its two months' journey. The early mornings were devoted to the day's march and the subsequent hours would be utilized for regular office work, when the computations (purposely left incomplete) of the previous season's triangulation were finished, boards projected and plotted, and all details prepared for field-work. In November field-work would be commenced, and carried on until early April, when the scattered members of the party met again for the long hot march back to the hills, which they reached towards the end of May. Nowadays the railway usually conveys a party from its 'recess' quarters, where

[1] The Survey of India, like other departments, is now divided into an Imperial and a Provincial branch. The former is as a rule recruited from the Royal Engineers or the Indian Army; the latter consists of men enlisted in India, to whom some of the higher posts of the department are open. There is also a Subordinate, and practically native, branch.

results are worked out during the hot weather, to the sphere of its field operations.

Difficulties in Kashmīr, the Central Provinces, &c.

The Kashmīr survey affords a good illustration of work carried on at high altitudes. It was entrusted to a young officer, Lieutenant T. Montgomerie, R.E., who, in 1855, with two assistants, commenced the main triangulation from the edge of the hills near Siālkot, observing with a 14-inch theodolite. From the outset the greatest physical difficulties were encountered; some of the first stations on the Pīr Panjāl were at an elevation of 13,000 to 15,000 feet, and this altitude increased as the work progressed northward. During one season the average height of the stations exceeded 17,000 feet; and it was frequently necessary for the observers to remain for days together at these great altitudes, waiting for the cessation of violent snow-storms or the clearing away of fog and mist, while all supplies and fuel had to be brought up from far below. With Montgomerie were associated several civil assistants and some officers of the Quartermaster-General's department, who carried on the detail survey with the plane-table, on the ½ inch to the mile scale, as the triangulation progressed. In five years the triangulation had been extended over 93,000 square miles and the map of the Kashmīr valley completed. The greatest height at which the theodolite was set up was 20,866 feet, though a mark was erected on, and luminous signals read from, a point at 21,480 feet, while the highest point fixed by the triangulation was K_2 (Mount Godwin Austen), 28,290 feet above sea-level. The plane-tabler just reached the height of 22,000 feet, and the native *khalāsi* who carried the instrument must have ascended to that altitude with a load of 18 lb. on his back. The survey was completed in 1864, by which time the triangulation had covered an area of over 110,000 square miles, and the detail survey about 92,000 square miles, of the highest, most rugged, and most desolate mountains on the face of the globe. The work had been extended over the Karakoram range to lat. 37° N. and included the Pangong Lake and the Changchenmo Valley. It is noteworthy that this survey was carried on, without cessation, during the troubled period of the Mutiny.

Mention may be made of another topographical survey, in progress from 1853 until 1877, which for nearly twenty years was superintended by a single man—Colonel Saxton. The scene of his labours lay in the deadly jungle-covered tracts from Chotā Nāgpur to the Godāvari, and embraces the Ganjām and Vizagapatam Agencies, and a portion of the Central Pro-

vinces with Bastar, Jeypore, and their dependencies, an area of over 70,000 square miles. The history of this survey is one continuous tale of sickness and death due to fever, and of active opposition to its progress by the wild tribes who inhabit that area. Of the many persons employed on it Colonel Saxton alone appears to have passed, though not unscathed, through the long ordeal. The season for field-work was limited, owing to the unhealthy nature of the country, to less than four months in the year, and but little relief was obtained from the move to 'recess' quarters, which, until 1886, were invariably established at coast ports on the Bay of Bengal. In 1862, in a review of nine years' work, Saxton gives the names of seventeen European assistants or surveyors who had taken part in it; and of these seven are reported as having died, while eight had been transferred, chiefly owing to sickness.

Present stage of the Topographical Survey.

These two topographical surveys may, however, be considered as extreme examples of the difficulties which attend the surveyor's life. Between them lie many a pleasant record and experience of work performed under ideal conditions of country, climate, and scenery. Such are the surveys in Bombay, Rājputāna, Mālwā, and Central India, and among the outer Himālayas. The life of a surveyor, though solitary, affords, in its intervals of leisure, varied opportunities to the artist, the archaeologist, and the sportsman, and leads him into tracts of country rarely visited by Europeans.

During the last thirty years topographical surveys have been pushed on throughout India, more especially in Burma; and now, with the exception of portions of the latter Province and certain tracts in Madras, there is hardly any part of the Indian empire which has not been topographically mapped. Unfortunately no provision was made for keeping the older maps up to date, and in consequence there are very considerable areas in which these have become practically obsolete.

Forest surveys.

The need for accurate topographical maps of the areas which came under reservation as forests had been felt as the organization of the Forest department extended over India, and in 1872 a special Forest Survey branch was constituted. The surveys were mainly carried out on a topographical basis, and subsequently some regular parties of the Survey of India were employed on similar work in the Central Provinces, and in the Madras and Bombay Presidencies. In October, 1900, the Forest Survey branch was amalgamated with the Survey of India, and an officer of the latter department was placed in charge of the entire work. The forest surveys will probably

be completed by the end of 1906 in India proper; but for Burma a considerably longer period will be required, as the total area of forest reservation in that Province is not yet known.

Frontier and trans-frontier surveys.

Next in order to the regular topographical surveys, based on the main triangulation and carried out by accurate plane-tabling, come those which are the results of the work of smaller survey detachments, or at times even of single officers, while attached to the numerous boundary commissions or frontier expeditions, which are of frequent occurrence in every direction beyond the borders of India. Their range may be said to extend from Nyassaland, Uganda, and Abyssinia in Africa, through Persia and Afghānistān, with a break for the greater part of Tibet and Nepāl, over the northern and eastern limits of Burma into China, since officers or subordinates of the Survey of India have at various times been employed in all these countries. With the perfection of modern instruments and a full appreciation of the powers of the plane-table, the majority of these small-scale surveys have attained a high degree of accuracy, especially when tied together by triangulation. Though the scale adopted does not admit of the delineation of intricate detail, yet for geographical purposes, or as bases for boundary demarcation, they serve their purpose well. Such surveys are invariably on smaller scales than that of 1 inch to the mile, and during their progress the surveyor is frequently called upon to utilize the various shifts and expedients that are open to him if he wishes his survey to progress with the advance of the commission or force to which he is attached. A detailed account of all such work, which may be considered as ranging in value between an accurate topographical survey and a rough geographical or exploratory sketch, would be the history of every boundary commission and military expedition that has been organized by the Government of India during the last half-century. It will suffice to take as illustrations the surveys carried out during the Afghān Wars of 1878–80, and in the course of the Afghān Boundary Commission.

During the first Afghān War a large amount of route surveying had been carried out by the old methods, but few attempts had been made to acquire any geographical knowledge of the country. Some of the route surveys were of good quality; but when they were combined large gaps were discovered, and, as usual, considerable errors were found in the longitudes assigned to the principal places. Thus Kābul and Kandahār, in the early maps, were placed seven and fifteen miles respectively

west of their true position. During the Afghān War which commenced in 1878, survey officers with native assistants were attached to the various columns which penetrated into the country, and their orders were that efforts should be directed towards obtaining as much general geographical knowledge as possible, while survey work was not to be confined to the lines of communication. With this view, plane-tabling on the scale of a half or quarter inch to the mile was adopted, and triangulation was largely utilized to connect and strengthen the detail surveys. It was of course not possible in every case to keep the triangulation ahead of the detail work, owing to the rapidity of the marches; and when this occurred, dependence had to be placed on the plane-table and on traversing. The prolonged occupation of the country, and the various routes of the columns engaged, allowed of the mapping on various scales of the greater portion of area comprised in the operations. The services of the field engineers and of such staff-officers as could be spared were utilized for large-scale work and route surveys, and their results were reduced and incorporated in the general map. At the close of the war the area surveyed more or less in detail amounted, in Afghānistān and Baluchistān, to about 48,000 square miles, while an additional area of 7,000 square miles was explored by native agency.

The Commission which was engaged, in conjunction with Russian colleagues, in laying down the northern boundary of Afghānistān in 1884–6 allowed of a very considerable extension of geographical knowledge in Central Asia. The work was mainly carried out by three officers and three native surveyors of the Survey of India, subsequently assisted by officers of the Intelligence Branch. The results are noticeable in that the enormous area covered by the topography, about 110,000 square miles, was almost entirely dependent on triangulated points. The extension of this triangulation was a matter of some difficulty, as the surveyors were unable to leave the line of march when first entering the country, but the method adopted gave very satisfactory results. Briefly, this consisted in observing for latitude at every camp, and for azimuth to all peaks in the line of march, which in this case lay nearly north and south. When camping abreast of any of these peaks, their position was fixed with reference to the camp by means of a short base, with the usual observations for latitude and azimuth. The difference of longitude was thus obtained, and the work kept pace without a break with the advance, which at one period covered 310 miles in nineteen days.

Work of native explorers.

The plan of training natives in the elements of surveying with a view to their employment in exploration, and for the purpose of acquiring geographical information of countries beyond the Indian frontiers into which no British officer could penetrate, originated with Captain Montgomerie while engaged on the Kashmīr survey. His idea was to employ Pathāns for explorations in the Hindu Kush, the Oxus Valley, and Turkistān, and Bhotiās or Tibetans for work in Tibet and on the borders of the Chinese Empire. These men were taught how to make and keep records of route surveys by compass and pacing, the method of observing for latitude by meridian altitudes with the sextant, and the use of the thermometer and barometer; but they were purposely not taught how to reduce their observations, nor supplied with astronomical tables, with a view to preventing any fabrication of work. The earliest journeys of this nature dated from 1861, and were made in the direction of Yārkand and in the hill ranges around Chitrāl. One Nain Sing, known as 'the Pundit,' who was sent on a journey into Tibet in 1864, was the first explorer to reach Lhāsa, residing there for three months; and, after an absence of over two years, he brought back to India a very large amount of information concerning the course of the great river of Tibet, the Tsan-po, which he roughly followed for 600 miles from its source. 'The Pundit' subsequently made several journeys into Tibet and Nepāl, of which the most important was that which occupied him in 1874 and 1875, on the vast lacustrine plateau of Tibet. He again visited Lhāsa, and continued his previous exploration down the Tsan-po. His work covered 1,200 miles of country entirely unknown before, defined the eastern limits of the Pangong Lake, and proved the existence of a system of numerous lakes and rivers, and of the vast snowy range of the Northern Himālaya. 'The Pundit' retired in 1875, and was subsequently rewarded with the C.I.E., a grant of land, and the gold medal of the Geographical Society. Another very adventurous journey was made by 'A. K.,' also a trained explorer. He was employed for over four and a half years, traversing about 3,000 miles of country in Tibet, and made determined efforts to ascertain the course of the Tsan-po beyond the point where it was last seen by 'the Pundit.' The most important result of this journey was to establish the fact that the Tsan-po does not flow into the Irrawaddy basin, and that it has no other possible exit than through the channel of the Dihāng into the Brahmaputra. 'A. K.' likewise received rewards from the Government of India, and two gold medals

from Geographical Societies. Several attempts have since been made to map as much of the course of the Tsan-po as still remains unknown, a length of considerably less than 100 miles. Other journeys yielding less important results have been carried out from time to time by trained explorers over large areas on and across the north-west frontier, and the maps available for the military expeditions of the last thirty years may be said to have been based largely on the information thus obtained. On more than one occasion subordinate officers of the Survey of India have penetrated in disguise beyond the frontier, returning with valuable information. Thus M'Nair, disguised as a *hakīm*, managed to cross the Malakand Pass and to traverse Lower Swāt, Dīr, and Chitrāl, reaching the Dorāh Pass in the Hindu Kush, and returning to India through Kashmīr. The map issued before the Chitrāl Expedition of 1895 was based on the information gained during the course of this adventurous journey.

The journeys in Tibet and Central Asia of such explorers as Ryder, Bower, Deasy, and Stein have, from time to time, added considerably to our geographical knowledge; and it is interesting to note that in several cases the mapping work and route surveys then executed are mainly due to the labours of native surveyors of the Survey of India whose services were temporarily lent to these travellers by the Government of India. Surveys in Africa, Siam, and China, though beyond the official scope of the Survey of India, have also been carried out by officers and subordinates of that department.

Revenue surveys.

The revenue surveys, which form the basis of all settlement operations and of the entire fiscal administration of the country, were commenced as early as 1822, west of the river Jumna, in the Delhi, Pānīpat, and Rohtak Districts. Measurements were made of the boundaries of estates and villages by means of the theodolite and chain, and the work was based upon the traverse system. The topographical details on these old surveys appear to have been well-executed, but a retrograde step was introduced after a conference of surveyors held at Allahābād in 1834 by order of Lord W. Bentinck. At this conference it was decided that the maps furnished by surveyors were in future to show accurately only the boundary line of each village and its site, all topographical details such as roads, rivers, &c., being roughly sketched in. But this rough work, which preceded the Great Trigonometrical Survey and was never properly connected therewith, soon became obsolete, and by the year 1850 the greater part of it had been revised. In 1838 the 'main circuit' system was introduced, which completely

changed the old methods of revenue surveys. Roughly speaking, the earliest system may be said to have been that of working from the less to the greater. The map of any District was the result of the fitting together of a large number of independent village boundary surveys; and in such work, if extended over any considerable area, large errors necessarily accumulated, especially if no check or tie was afforded by frequent connexions with the principal triangulation. The 'main circuit' system involves the running of main traverses which, connected with the triangulation, enclose areas of one hundred to two hundred square miles. These areas are then further subdivided by minor traverses which, as a rule, approximate closely to the village boundaries. The entire work is thus kept within certain clearly defined limits of error, and, where these are exceeded in either angular or linear measurements, a resurvey is necessary. This system has remained in vogue up to the present day, though the methods of filling in the interior details have varied; and when strictly followed it affords a perfectly satisfactory basis for all land measurements for settlement purposes. The effective prosecution of a revenue survey is dependent, to a very great extent, on the co-operation of the Collector or Settlement Officer of the District, who is responsible for the early demarcation of all village boundaries and the issue of the necessary orders regarding assistance to the surveyors, &c. The revenue surveys under the Government of India are divided into Upper and Lower circles, the former comprising the Punjab, the United Provinces, and Sind, the latter comprising Bengal (with Bihār and Orissa), Assam, and Burma. The Madras and Bombay Presidencies have carried out their revenue surveys with separate establishments.

Progress of work.

The period of Colonel Thuillier's administration of the revenue survey, which dates from 1847 and lasted for thirty years, was, as previously stated, marked by great advances in the accuracy and general utility of its results, and excellent surveys of the Punjab, Oudh, Sind, the Central Provinces, and Bengal were executed under his direction. The work in the Province of Agra had unfortunately been finished before his time; and most of the original plans of this survey, bound up in folio volumes, were destroyed during the Mutiny.

Cadastral and local surveys.

In 1876 the success of the professional surveys in Bengal came under discussion, and the Board of Revenue expressed the opinion that the surveys necessary for settlement purposes might be done at far less cost by non-professional agency. This led General Walker, who was then Surveyor-General, to

prepare an elaborate statement concerning the different classes of land surveys. These were the topographical surveys on the 1-inch scale, based on triangulation and carried out with the plane-table; the village surveys on the 4-inch scale, based on traverses with details filled in by the plane-table; and the cadastral surveys on the 16-inch to the mile scale. These last were introduced in 1871; and they differed from the others in the fact that, while based on the traverses, the interior measurements were made by systematic chaining, of which full details were kept in field-books, thus providing permanent records always available for subsequent reference. General Walker expressed the opinion that cadastral surveys, though initially expensive, are really the cheapest considering the amount of information they give for topographical purposes. This system has since been followed in all revenue surveys carried out by the Survey of India.

But in several Provinces and Districts of India settlement operations have at times been based on surveys carried out by local native agency, wholly or partially independent of professional aid. Thus the settlement work in the Punjab which is now in progress, depends on large-scale surveys carried out on what is known as the 'square system.' In this the local native surveyor measures a base of 1,100 feet in each village, marking the ends by dressed stones, and from this lays out on the ground a succession of squares of similar sides, and refers the positions of all boundary marks, fields, roads, and canals determined from actual chain measurements to the sides and diagonals of corresponding squares ruled on his field-sheets. This method, which is sufficient for settlement purposes, fails when attempts are made to compile a geographical or topographical map over a considerable area by combining the surveys of a large number of villages, as it is based neither on triangulation nor on traverse, while the main topographical features are omitted by the local surveyors. In the Central Provinces also the latest settlements have been based on surveys carried out by local agency, but in this case a traverse party of the Survey of India, working on the 'main circuit' system, supplied skeleton plots of each village boundary to the local surveyors, who filled in the field measurements and other details thereon. As a result these revenue surveys can be fitted together and, after reduction of scale, combined into topographical maps of the area which they cover.

Value of results

The present method of bringing the topographical maps up to date consists in utilizing, as far as possible, the cadastral

surveys, and those executed by *patwāris* or other local agency, and the system undoubtedly costs less than would a new topographical survey. The pressing need at present over a very large part of India and Burma is revisionary survey which shall bring up to date the obsolete work, in many cases over fifty years old.

for topographical maps.

The 16-inch cadastral surveys executed by professional agency are, as a rule, sufficiently good for direct reduction to the 2-inch scale, and for the compilation of maps on that scale which may be further reduced by photography into standard, or 1-inch to the mile, topographical sheets. But all work executed by local agency alone, as in the Punjab, requires to be first connected by traverses starting from the main triangulation in untraversed Districts, or, where the traverse data of fifty years ago are still forthcoming, to be connected therewith by supplementary traversing. It requires, in short, some geodetic basis or starting-point which it does not now possess. Moreover, when the *patwāris'* maps are reduced and fitted together by traverse, it is still necessary for such reductions to be sent into the field again, to have the topographical details inserted thereon by means of the plane-table, many such details being invariably omitted by the *patwāris*.

Work of Madras and Bombay Survey departments.

Prior to the organization of the Madras Survey department, a topographical survey of the Presidency had been made by officers of the Quartermaster-General's department or of the Madras Military Institution. The results of that survey are embodied in twenty-three sheets of the Atlas of India. These sheets are revised from time to time in the Surveyor-General's Office, Calcutta, as the materials of later cadastral and topographical surveys become available. From the year 1858, when the revenue survey was commenced by Captain Priestley, the Madras Presidency has continued to maintain a Survey department of its own, whose work has been generally based on Colonel Lambton's triangulation and carried out on the 'main circuit' system of traversing. Of the total area of 140,000 square miles to be dealt with, more than half has up to the present date been cadastrally surveyed by the Madras Survey department, whilst 56,000 square miles have been surveyed topographically. The cadastral survey, which applies chiefly to ryotwāri villages, and in special cases to proprietary estates, is carried out on the usual scale of 16 inches to the mile, while the scale of topographical work, which includes the hilly tracts, large zamīndāris, and small proprietary estates, varies from 4 inches to half an inch to the mile. Of the

area still remaining for survey, about 10,000 square miles comprising hill tracts will be topographically surveyed by the Survey of India, the balance being either surveyed cadastrally by the Madras Survey department, or included in the forest surveys.

In the Bombay Presidency, the revenue surveys date from 1836, and their original design is due to Sir George Wingate. They are not based on triangulation, and are chiefly executed with the chain and cross staff. As in Madras, they have been carried out by a local Revenue Survey department which works independently of the Survey of India. The field operations of the village surveys are conducted by native measurers, whose work is supervised and tested by a European assistant. The revenue assessment, which in Bombay has been carried out by the Survey department, is based on an elaborate system of classification of the nature, depth, and productive capability of the soil in each field, and the character of the water-supply available. The work is now finished and the Bombay Survey department has been gradually disbanded. This revenue survey, though amply fulfilling the administrative requirements of the Settlement officers, was not conducted with a view to its possible utility for the compilation of topographical maps, and hence topographical surveys of the whole of the Bombay Presidency became necessary. These were carried out, chiefly on the 1-inch scale, by several parties of the Survey of India at various periods between the years 1864 and 1896.

The map publications of the Indian surveys.

Rennell's *Memoir of a Map of Hindoostan*, published in 1788, was followed, in 1816, by Arrowsmith's map, which was also based on route surveys, comprised in nine sheets on the scale of 16 miles to the inch. In 1822 Arrowsmith published the surveys of the early topographers, whose work was based on Lambton's triangulation, in a map of eighteen sheets on the scale of four miles to the inch, containing the area between the Kistna river and Cape Comorin. About the same time the Court of Directors decided on incorporating the results of the various trigonometrical and topographical surveys into one Atlas of India, to be engraved on the scale of four miles to the inch. The work was entrusted to Arrowsmith; but he died after making the projection and publishing a few of the sheets, and Mr. J. Walker, who came of a family of engravers, was appointed to carry on the work. The projection for the sheets of the Atlas, as devised by Arrowsmith and still followed, is a modification of the conical development, in which a cone is assumed to roll over the spheroid tangentially to an adopted

central parallel of latitude. The Atlas was designed to occupy 177 sheets, 40 inches by 27, and the scheme embraces the area from Karāchi to Singapore and includes Ceylon. Walker was employed in England for more than forty years on the engraving on copper and publishing of the Atlas sheets. By the time of his retirement in 1868 eighty-four of the sheets had been published, and arrangements were then made by the Surveyor-General for the continuation of the work in India. A staff of qualified engravers was recruited in England, and since 1869 the remaining sheets of the Atlas have been engraved and printed in Calcutta, new editions being brought out as materials become available from fresh surveys. The materials for a first edition of the Indian Atlas were practically complete by the year 1875, but their quality naturally varied very considerably, as even at that time several of the surveys were more or less obsolete and required revision. The work of the field parties, revenue and topographical, on various scales was at first reproduced by lithography; but in 1866 the process of photozincography was adopted, and printing offices were then established at Dehra Dūn and Calcutta, where the maps are still published. A new map of India and adjacent countries on the scale of 1 : 1,000,000, or approximately 16 miles to the inch, is in course of preparation, and its limits, extending between lat. 4° and 40° N., and long. 44° and 112° E., will far exceed those of the Indian Atlas.

The principal publications of the Indian Surveys are, however, standard sheets on the scale of 1 inch to the mile. These are complete for considerable portions of India proper, but new editions are continually brought out as materials become available from fresh surveys. A large number of these sheets, such as those of the Bombay Presidency, Mysore, and a considerable part of Burma, are reproduced from topographical surveys carried out on the 1-inch scale, while those of the Punjab, the Central Provinces, and parts of the United Provinces are compilations or reductions from the large-scale cadastral and revenue surveys.

Departmental organization of the Survey of India.

The three Survey branches, Trigonometrical, Topographical, and Revenue, formed at different dates, were at first virtually separate departments, each with its own superintendent and distinct cadre of officers and establishment of European and native surveyors. Both Everest and Waugh, as Surveyors-General, exercised control over the Trigonometrical and a portion of the Topographical branches; but the Revenue Survey remained a distinct department, though its Superintendent

supervised the work of several Topographical parties. In 1866 the Survey department received its first regular organization, when establishments were revised and uniform grades and scales of pay allotted to the three branches, which, however, still retained their own Superintendents. During the next few years the duties of the three departments began to overlap and intermingle. The Great Trigonometrical Survey was approaching its completion in India proper, and for many years a considerable proportion of its officers had been employed on purely topographical work. The Topographical Survey, though originally intended for the primary general Survey of India, had had to undertake in many cases detailed large-scale surveys; and the Revenue Survey had, in addition to its own special functions, been largely employed on the topography of hill districts on a trigonometrical basis. Accordingly, in 1878 the three branches were amalgamated under the designation of the Survey of India, whose officers were to be available for any description of survey work that might be required of them, and were all placed under the orders of the Surveyor-General.

Indian Survey Committee.

In 1904 a Committee was appointed to report on the state of the maps in each Province, and the measures required to bring them up to date. This Committee reported in 1905. Among the more important recommendations were: (1) that the preparation of a modern map of India on the scale of 1 inch to the mile should at once be undertaken according to a definite programme, by which fifteen topographical field parties would be employed and the whole work would be completed in twenty-five years, and further that the scale of survey should generally be at least double that of publication; (2) that for the production of this map an improved process of heliozincography should be employed, a few selected standard sheets being engraved on copper; (3) that the Atlas of India sheets should be superseded by 'degree' sheets on the $\frac{1}{4}$-inch scale, to be engraved on copper; (4) that, in place of the $\frac{1}{16}$-inch Provincial maps, a general map of India on the international scale of 1 : 1,000,000 should be prepared and engraved; (5) that the staff of the Imperial Service for trigonometrical and topographical work should be increased from forty to seventy officers; (6) that, in place of the existing Provincial Service, a new Provincial Service should be established on better pay, and another Service formed intermediate between this and the present Subordinate Service, one quarter of the appointments in the former and one-half in the latter being given to natives of India; (7) that cadastral and

other large-scale surveys should be left entirely under the control of Local Governments, who should provide for the expense of the work and also for the production of the maps; (8) that village boundaries should not be shown on the ordinary topographical maps, but that if these are required for administrative purposes, a special edition showing them should be issued under certain conditions; and (9) that the cost of special forest surveys, when required, should be debited to the Forest department.

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APPENDIX

Marine Surveys

The Marine Survey department. Its origin and constitution.

As stated on p. 481, the survey of Indian waters commenced, with coast charts, in the early days of the East India Company. About 1770, Captain John Ritchie began a systematic survey of the coasts of the Bay of Bengal and the outlets of the Ganges. This, the first survey of importance in Indian waters, was followed by others, so that when the Indian Navy was abolished in 1862, the whole seaboard of India, and the adjoining waters from the Red Sea and the Persian Gulf to the Straits of Malacca, had for the most part been surveyed as far as was practicable with the imperfect appliances available. Little more was done until 1873, when the Duke of Argyll, then Secretary of State for India, brought to the notice of the Indian Government the necessity for greater accuracy and more minute attention to detail by marine surveyors, in order to keep pace with the requirements of modern navigation. The Government of India accordingly established a special Marine Survey department in 1874, and procured some officers from the Admiralty to serve in it. The Marine Survey thus constituted failed, however, to produce the desired results; and in 1881 the department was reorganized, under a Commander from the Royal Navy, with a staff of four naval and eight Indian Marine officers. Since 1881 this staff has been slightly reduced, and all its members except the officer in command are now drawn from the Indian Marine, to which the Marine Survey is administratively attached. Survey work is carried out from the Indian Marine paddle-steamer *Investigator* (515 tons), assisted by the steam tender *Nancowry* (70 tons).

Character of marine surveys.

The object of marine surveying is to provide charts for the purposes of navigation, and as these are intended only for the use of mariners, extreme trigonometrical accuracy is not attempted or required. A theodolite larger than 6 inches is rarely employed, and triangles that close to within one or two minutes answer every purpose. The usual method adopted is to measure a base three or four thousand feet long on some level ground or sand-flat, and extend it by means of triangulation. The positions of the initial and terminal points of this triangulation (usually 50 or 60 miles apart) are determined astronomically, and the scale is adjusted to agree. Should Great Trigono-

metrical Survey points be available, they are of course used. Astronomical observations are made with a sextant, fitted with a stand and an artificial horizon. The coast-line and its salient points, landmarks, summits of hills, dangers, &c., are charted with the utmost accuracy, and the positions of these on a modern chart can be implicitly relied on.

Soundings.

Sounding is the most tedious, and at the same time one of the most important, of the duties a marine surveyor is called upon to perform. The depth of water is measured by means of an ordinary lead and line marked to feet, unless exceptional accuracy is required, when a pole is employed marked in feet and inches. All soundings are reduced to Indian spring low-water mark, which is a compromise between the heights of the lowest tides of the dry and wet seasons, fully explained in the *Tide Tables for Indian Ports*, published by the Tidal and Levelling branch of the Survey of India; and the depth of water is shown on the charts by figures (denoting feet or fathoms according to the accuracy required) at the positions where the soundings were taken. When water shallower than the surrounding soundings indicate is struck, the locality is carefully examined in order to discover hidden dangers which, when found, are shown on the charts by conventional symbols.

Progress of port and coast surveys.

The output of marine survey work naturally depends enormously on the conditions of wind and weather; but the normal out-turn for a surveying season (October to April) is a chart of from 100 to 120 miles of coast-line, on a scale of 1 inch to the nautical mile, sounded off to 100 fathoms, with perhaps two or three large-scale plans in addition.

The sphere of the Marine Survey extends from Baluchistān to Siam, but its services have on more than one occasion been utilized outside these limits. All the principal and most of the secondary ports in India and Further India have been surveyed recently, and 1,500 miles of coast had been accurately charted up to 1904. The survey of the Burma coast is that which now requires most immediate attention.

Deep-sea sounding and trawling.

The *Investigator* is fitted with appliances for sounding and trawling in any depth. These operations are carried out in transit from one coast to another and, when depths are suitable, on the surveying ground itself. Considerable additions to our knowledge of oceanic depths and deep-sea zoology have thus been obtained. An officer of the Indian Medical Service is attached to the Marine Survey as surgeon-naturalist, for the express purpose of examining and classifying zoological specimens.

Publication of results.

The results of survey work are forwarded to the hydrographer of the Royal Navy, who has charts engraved on scales most suitable for the purposes of navigation. Some photozincograph records of the work done are, however, first made in India and issued locally, and all records of natural history work are published through the Calcutta Museum.

Principal zoological results obtained by the Marine Survey.

The following paragraphs, supplied by Major Alcock, I.M.S., give a brief summary of the zoological results of about 200 dredgings made from the *Investigator* in the Arabian Sea, the Bay of Bengal, and the Andaman basin:—

(1) *Protozoa.*—Outside the limits of the 'continental slope' (or great submarine 'shoot' of river-borne sediment) and of the Andaman and Laccadive coral formations, the sea-bottom consists of the well-known foraminiferal ooze, in which 277 species have been identified. Off the Andamans there occur large arenaceous Foraminifera, described by H. B. Brady as *Masonella*.

(2) *Porifera.*—The Triaxon sponges, so characteristic of the deep sea, have been found at all depths up to 1,997 fathoms. F. E. Schulze has described thirty-one species, of which twenty-six were new to science. They include numerous species of glass-rope sponges (*Hyalonema*) and Venus's flower-basket (*Euplectella*), as well as Atlantic species of *Farrea* and *Aphrocallistes*.

(3) *Coelenterata.*—Characteristic deep-sea forms, such as *Conopora*, *Cryptohelia*, *Atolla*, encrusting *Palythoa*, *Umbellula*, *Calypterinus*, have all been found; and the precious coral (*Corallium rubrum*) has once been dredged in mass off Ceylon, but in water too deep for profitable working. Of Madrepore corals, twenty-five species have been described by Alcock, some of them being identical with fossils from the tertiary rocks of Sicily and Calabria.

(4) *Echinodermata.*—Starfishes, brittle-stars, and sea-urchins live in shoals on the continental slope, and the oozy depths of the Bay of Bengal are thickly peopled with strange Holothurians. More than 250 species of Echinoderms have already been dredged, of which about three-fourths were new to science: these have been dealt with by Koehler, Wood-Mason, A. R. S. Anderson, Walsh, and Alcock. Many characteristic deep-sea genera have been recognized, such as *Pontaster*, *Porcellanaster*, *Zoroaster*, *Hymenaster* with its brood-pouch; *Brisinga* and *Freyella*; *Phormosoma*, *Pourtalesia*, *Homolampas*, and *Palaeopneustes*; *Benthodytes* and *Deima*.

(5) *Crustacea.*—About 250 species have already come to

light. Most of them belong to the groups *Caridea* (shrimps), *Galatheidea* (hermit-lobsters), *Peneidea* (prawns), and *Astacidea* (lobsters), and many are of primitive mould; the crabs are rare, and include a large proportion of archaic forms—*Homolidae* and *Dromidae*. Some of them have a most suggestive geographical range: such are *Homola*, *Maia*, *Trichopeltarium; Nephrops*, *Phoberus*, *Calocaris; Pylocheles*, *Nematopagurus*, *Lithodes; Pasiphaea;* and the Brobdingnagian isopod *Bathynomus giganteus*. Many display wonderful adaptations to the severe conditions of deep-sea life: species, such as *Munida* and *Glyphocrangon*, with enormous eyes like those of nocturnal animals; forms, like *Parapandalus*, with accessory eyes; forms, like *Heterocarpus alphonsi*, that can secrete their own light. On the other hand we find species with eyes in every stage of degeneration, from *Munidopsis* and *Galacantha*, which have eyes devoid of the pigment requisite for vision, through *Nephropsis*, which has eyestalks but no eyes, to *Polycheles*, whose bare eyestalks are not easily recognizable. Some species, such as *Encephaloides* and *Parilia*, have the gills and gill-chambers magnified, to overcome the difficulty of breathing at great depths. Some, such as *Psathyrocaris*, lay a small number of enormously large eggs, thus illustrating the argument that, where the conditions of life are rigid, births must be checked, and ample provision for the young made, if the species is to hold its own. Instances of commensal adaptations between Crustacea and zoophytes are common, each party unconsciously rendering the other vital assistance while pursuing its own independent ends: such are the cases of *Parapagurus pilosimanus* and *Paguropsis typica*, both of which live with sea-anemones. The majority of deep-sea Crustacea are simply coloured—usually red or orange, occasionally milk-white, protective and other pattern-markings being useless where there is little or no light. The chief local workers upon this group have been Wood-Mason, A. R. S. Anderson, and Alcock.

(6) *Mollusca*.—About 150 species of molluscs have been described, chiefly by Smith (the cuttle-fishes by Goodrich), and a large proportion were new to science. Among the gastropods we find *Astralium*, *Solariella*, *Bathybembix*, *Xenophora*, *Puncturella*, many species of *Pleurotoma*, and the remarkable *Pontiothauma*—a large, blind form; and among the bivalves *Lima*, *Limopsis*, *Nucula*, *Yoldia*, *Crassatella*, *Cryptodon*, and numerous species of *Cuspidaria* and *Amussium*.

(7) *Fishes*.—Of fishes, 172 species have been added to the list, 128 being new to science. They include spiny dogfishes,

true rays, numerous berycoids, and curious frogfishes (*Pediculati*), pleuronectoids, scopeloids, and eels; as well as many species of the characteristic deep-sea families *Ophidiidae*, *Macruridae*, *Sternoptychidae*, *Stomiatidae*, *Alepocephalidae*, and *Halosauridae*. Many of them are conspicuously adapted to their environment: such are *Aulastomomorpha*, *Leptoderma*, and *Bathyclupea*, with their enormous eyes; *Lamprogrammus*, *Neoscopelus*, and *Polyipnus*, with their rows of large luminary organs; the purblind *Onirodes*, and *Benthobatis* (the only electric ray yet known from the depths), with their luminous lures; the defective-eyed *Bathypterois*, with its streaming compensatory feelers; and *Tauredophidium*, with rudiments of eyes buried beneath the bones of the head. In another direction, illustrating the need for special parental care in the sullen bottoms of the deep, we find viviparous Teleostei, such as *Saccogaster*, *Diplacanthopoma*, and *Hephthocara*. Lastly, we have *Chiasmodus*, *Chauliodus*, *Photostomias*, *Malacosteus*, and *Astronesthes*, all proclaiming, with fang and gape that would have startled even the poet of evolution, the unlovely fact that the fishes of the sunless abysses, where plant-life (bacteria perhaps excepted) is interdicted, are ravenous beyond imagination.

CHAPTER XVI

CURRENCY AND BANKING

Currency

THE early coinage of India under its Hindu and foreign rulers has been treated at length in a chapter on Numismatics in Volume II. As the existing British currency is based upon that of the Mughal empire, it will be sufficient here to give a brief explanation of the Muhammadan system which the Company found in use.

Muhammadan coinage.

The early Muhammadan rulers used the Arabic standards for the gold *dīnār* and silver drachma, and for common use issued copper and other subsidiary coins of the indigenous standard; and it was not till about 1233 A.D., in the reign of Shams-ud-dīn Altamsh, that silver coins called *tankās*, of a mint standard approaching 175 grains, were introduced, thus connected with the ancient Hindu monetary system. For many years gold and silver coins were struck in pure metal of equal weights, and each of the former was theoretically equal to eight of the latter, though the actual exchange must have varied. Muhammad Tughlak (1325–51) made several innovations. He issued heavier gold coins, the standard of which is uncertain, and also silver coins of about 140 grains, and smaller pieces of 56 or 57 grains. Another experiment, which resulted in utter failure, was the issue of brass or copper token-money, intended to pass as silver. The new silver coins of 140 grains also appear to have been invented as a currency device to reduce the pay of troops. These gradually fell out of use, while the standard *tankā* of 175 grains continued. The greatest reform made by Sher Shāh (1540–5) was the abolition of billon (subsidiary) coins, the value of which had to be determined by guessing at the amount of silver they contained, and the substitution of pure copper. The weight of the rupee (*rūpya* = silver piece), as the *tankā* was now called, was at the same time increased to about 179 grains, this result being arrived at by an increase in the theoretical weight of the *ratī*[1],

[1] The *ratī* is the seed of the *Abrus precatorius*, which was the indigenous Hindu standard, the weight varying from 1·75 to 1·96 grains.

and by variations in the exchange between silver and copper, which rose about that time from 64 to about 73 to 1. Under Akbar the coinage was still further improved and theoretical principles were applied. The leading idea was that copper was the metal most stable in value, and the *dām* of 324 grains became the unit for calculation of revenue and prices. Thus, 40 *dāms* went to the rupee, the weight of which was intended to be 180 grains, and the commonest of the numerous gold coins was worth 10 rupees and weighed 170 grains, while others varied in value up to 1,000 rupees. There were fractional parts of most of these three standards. The ratio of gold to silver, which was 8 to 1 in the early Muhammadan period, and had fallen to 7 to 1 after the conquest of the Deccan by Alā-ud-dīn Muhammad, had now become 9·4 to 1. The standards described above continued (subject to a few temporary innovations made by Jahāngīr) until the debasement of the currency as the empire fell to pieces.

Native mints.

In the early days of Muhammadan rule coins appear to have been struck chiefly at Delhi; but on the conquest of the Deccan they were produced in two or three other places, and as independent States arose in Bengal and elsewhere, the kings of these struck coins at one or more cities in their dominions. Sher Shāh first set the example of having more numerous mints, and this was followed by the Mughals. In Aurangzeb's reign coins were issued from about seventy mints, and the total number of places at which Mughal coins were struck in the whole period from Akbar to Bahādur II is about 200. In the latter part of this period, however, many of the mints belonged to practically independent viceroys or to the Marāthā and other States. In the local mints the coinage was gradually debased for the illicit profit of the rulers or of the mint officials, until the whole country was filled with a bewildering collection of rupees of different values. The dates and other characteristics of the coins enabled the shroffs (*sarrāfs*), or money-changers, to recognize them and so to apply the *batta* or allowance appropriate to the known debasement of each. The opportunity for fraud yielded by such transactions may readily be imagined.

Coinage of the East India Company.

The history of British coinage in India begins in the reign of Elizabeth with the export from England of special coins, with the device of a portcullis, for use in the Company's factories. In 1671 a mint was established at Bombay, where a local coinage was issued, bearing English inscriptions, for circulation in the island and immediate neighbourhood; and

Khāfi Khān records in 1694 that 'some rupees which the English had coined at Bombay with the name of their impure king' had displeased Aurangzeb. In 1686 James II authorized the Company to issue at all their forts copies of current native coins, on condition that they maintained the proper weight and fineness. In 1717 Farrukh Siyar granted the first permission to coin his money at Bombay; and in 1742 permission was given to coin imitations of Arcot rupees, which were issued at first from Fort St. George[1] and later on at Calcutta, and also by the French at Pondicherry. The Calcutta mint was first recognized by the Nawāb of Bengal in 1757; and soon after the battle of Buxar, in 1764, the Nawāb's mints at Patna, Dacca, and Murshidābād were closed, but coins continued to be struck by the Company at these places as well as at Calcutta. The Benares mint was taken over about 1786, and that at Farrukhābād about 1803.

Four main denominations of rupees gradually replaced the old miscellaneous coinages. The Murshidābād rupee, of the nineteenth year of the reign of Shāh Alam, was adopted for the coinage of the Company's Province of Bengal and became the *sikka* rupee[2] of the Calcutta mint, which weighed 179⅔ grains and contained 175·9 grains of pure silver. This was the only British coin which retained the full value of the old Mughal system; in the remaining cases deterioration had progressed some way before it was arrested by the arrangements introduced by the Company. The Surat rupee, which was adopted as the currency of the Bombay Presidency, contained 164·7 grains of pure silver. The Arcot rupee had a weight of 166·5 grains pure when first coined at the mint of Fort St. George. The Lucknow rupee struck by the Wazīr of Oudh had deteriorated to 165·2 grains pure when it was adopted as the standard of the Farrukhābād mint. The *sikka* rupee was the principal standard of value, but in Bengal and Bombay accounts were usually kept in what were called 'current' rupees. The 'current' rupee was only a denomination of account, representing the estimated value of the standard coin after making an allowance for wear. A variety of gold coins were current during this period: for instance, the gold mohur of Bengal; the old Bombay mohur and the Bombay gold rupee; various gold pagodas of

[1] Copper coin made in Birmingham was used in Southern India towards the end of the eighteenth century.

[2] The word *sikka* means a die and hence coin. The term *sikka* rupee refers probably to newly coined money, as distinguished from *sonaut*, or coin of past years (*sanwāt*).

Madras, such as the star pagoda, the old pagoda, and the Porto Novo pagoda; and the gold rupee, half-rupee, and quarter rupee which replaced the Madras pagodas under a Regulation of 1818. The East India Company tried to maintain gold and silver in circulation at a fixed rate, but the gold coins were undervalued and gradually passed out of circulation. Up to the end of the eighteenth century gold coins circulated freely, and a large portion of the revenues was paid in gold. In Madras, down to 1818, the currency was based upon the gold pagoda, inherited from the Hindu rulers of Southern India, which came to be reckoned as equal to Rs. $3\frac{1}{2}$. The minor denominations were fanams and cash: 42 fanams = 1 pagoda, and 8 cash = 1 fanam.

The subsidiary silver and copper coins differed considerably in the various Provinces. More than ninety denominations of pice and other copper coins were current. Small payments were made in the bazars in cowries, a description of sea-shell. Although much less common than in former times, cowries are still used in some places.

Unification of the coinage.

In 1835 a uniform currency was introduced for the whole of British India. The Madras rupee, the value of which was nearly equal to that of the Bombay and Farrukhābād rupees, was adopted for the new Indian coin. It weighs 180 grains, and contains 165 grains of pure silver. The other silver coins are of the same standard and represent the half-rupee or 8 annas, the quarter or 4 annas, and the eighth or 2 annas. The weight of the rupee (1 *tola*) is also the unit upon which the standard of Indian weights is based: 80 *tolas* = 1 seer, or 2·2 lb. avoirdupois. The rupee is divided into 16 annas, a fraction commonly used by both natives and Europeans in India; but, up to the present time, there has never been any coin corresponding to the anna. The anna is further subdivided into 12 pies. The rupee and the half-rupee are legal tender for any amount, provided that they have not lost more than two per cent. in weight and have not been clipped, filed, or defaced otherwise than by wear. The other silver coins are legal tender up to 1 rupee. The copper coins in common use are the half-anna or double pice, and the pie or twelfth part of an anna[1]. They are legal tender up to 1 rupee. Recent legislation (the Indian Coinage Act, 1906) has authorized the substitution of bronze

[1] The double pice has not been coined since 1880. Half-pice pieces are coined in small quantities. In the submontane tracts of the United Provinces and Bihār, Government copper coin has not yet ousted from circulation copper 'dumps' of rude manufacture which are made in Nepāl.

for copper, and the introduction of nickel as a subsidiary metal, commencing with a 1-anna nickel piece. The law of 1835 authorized the coinage of the gold mohur or 15-rupee piece and corelated coins, but gold coins were no longer legal tender and were allowed to pass at their market value as compared with silver coins. This gold mohur is still conventionally used, like the guinea in England, for the fees of barristers and physicians. In 1868 an attempt was made to introduce the sovereign into India. It was constituted legal tender as the equivalent of 10 rupees 4 annas, but the subsequent fall in the gold value of silver made the measure inoperative. In 1870 the Coinage Act of 1835 was repealed and re-enacted, but no substantial change was made in the system in force.

Consequences of the fall in the value of silver. Closure of the mints.

Under the Acts of 1835 and 1870 silver was received without limit when tendered for coinage at the mints of Calcutta and Bombay, and the gold value of the rupee consequently depended on the gold price of silver bullion. The decline in the value of silver as compared with that of gold, which began about the year 1873, occasioned a heavy fall in the rate of exchange as between India and gold-standard countries. In chapter vi an account has been given of the great loss which the Government of India suffered in making remittances to meet its sterling obligations in England, which rendered necessary a considerable increase of taxation. But this was by no means the only injury which India experienced from the fall in exchange. The whole economic relations between India and England were disturbed. The violent oscillations which continually took place in the rate of exchange upset trade conditions; and the uncertainty with regard to the gold value of capital invested in India, and the interest accruing from it, checked the influx of British capital and caused savings which might have been invested in the country to be sent home whenever a temporary rise in exchange afforded a favourable opportunity. For many years the Government of India endeavoured to promote an international agreement for the purpose of fixing the relative values of silver and gold; but when these efforts proved altogether unavailing, and the difficulties of the past seemed likely to be enhanced in the future, it was recognized that the adoption of a gold standard was the only way to avert disaster. The proposals of the Government of India were examined by a committee presided over by Lord Herschell, and, in 1893, preliminary steps were taken, on the advice of that committee, for the introduction of

a gold standard. The Indian mints were closed to the unrestricted coinage of silver; at the same time it was declared that gold coin and bullion would be received at the mints in exchange for rupees at the rate of 1*s.* 4*d.* to the rupee, and that the sovereign and half-sovereign would be similarly received in payment of sums due to Government. After a considerable period of difficulty and anxiety this policy achieved its object. In 1892–3 the average rate of exchange was 15·03*d.* In the two following years the rate fell, and in 1894–5 it averaged only 13·1*d.*; but during the next four years it rose steadily, and in 1898–9 the average was only 0·02*d.* less than the 1*s.* 4*d.* rate.

Introduction of a gold standard.

It was now determined to take the further steps necessary for acquiring a gold standard. In September, 1899, sovereigns and half-sovereigns were made legal tender at the rate of 1*s.* 4*d.* to the rupee, and a debtor could henceforward meet his obligation in whichever currency he preferred. The rupee, while still legal tender for any sum, now became a token coin representing one-fifteenth of a sovereign, though as yet no sovereigns have been coined in India. It was not anticipated, nor has it in practice been the case, that gold would penetrate freely into the interior, or be used otherwise than exceptionally save in the large centres, and to some extent along the railways, since gold coins represent too great a value for ordinary Indian transactions. The bulk of the metallic currency thus consists of coins which pass without limit at a tender value far greater than their intrinsic worth[1]. This position is not unexampled, and the case of France is to some extent parallel. The Government did not accept any legal obligation to give gold for rupees; but its policy is to make rupees and sovereigns as far as possible convertible, and to allow the composition and volume of the currency to adjust itself automatically to the condition of trade through the ebb and flow of gold. Accordingly gold is freely given on demand, as far as possible; and between January, 1900, and March, 1904, a sum of approximately 25 crores (nearly 17 millions sterling) had been issued to the public in this form. Of this sum an indeterminate, but apparently not very large, proportion remains in actual circulation. In the busy season there is an enhanced demand for rupees, and gold is offered to the Government in exchange for them; when trade is slack, the tendency is for the reverse

[1] From 1899 to the present time (1906) the exchange value of the rupee has been maintained at about 1*s.* 4*d.*, while a similar amount of silver bullion would be worth only from 10*d.* to 1*s.*

process to take place and for rupees to be offered in exchange for gold. In practice the operation takes place largely through the channel of the paper currency reserve. When there is a trade demand for rupees, and gold is offered freely to procure them, the proportion of gold to silver in the currency reserve increases. When this passes beyond a certain point, it is the practice of the Government to buy silver with the excess for coinage. In this way a stock of rupees becomes available to meet demands made on the treasury by the presentation of notes and gold, and at the same time the addition to the currency needed to replace wear and to meet the growing volume of business is effected through the automatic action of trade demand. When the reverse process takes place, and rupees return to the trade centres, a demand may be made on the Government for gold, and the proportion of gold to silver in the paper currency reserve will fall. It is of great importance that the Government should be prepared to satisfy at any time a considerable gold demand. Were it unable to do so, the rate of exchange between India and England might be adversely affected and the object of the whole currency policy endangered. To meet this difficulty a special Gold Reserve Fund has been established, on which the Government can draw should the stock of gold in the paper currency reserve become exhausted. The fund is derived from the profits made on the coinage of silver, which amount to about 50 per cent. on its bullion value. At the end of 1903-4 the Gold Reserve Fund amounted to about 6½ millions sterling, most of which was invested in British Consols, whence it can readily be realized as gold coin, while more than 10 millions sterling was held in gold in the currency reserve.

Reform of the currency. Contemporaneously with the closing of the mints, a much-needed reform of the currency was undertaken. Many of the older coins were greatly worn, though all alike were legal tender. The first step, taken in 1896, was to order that Government treasuries and the Presidency banks should not reissue any 1835 rupees that they might receive. In 1901-2 similar orders were given with respect to what are known as the first and second issues of 1840 rupees. The first issue actually belongs to that year. The second issue consists of the rupees that were coined between 1841 and 1861, all of which bear the date 1840, according to an inconvenient practice which had previously been adopted in the case of the *sikka* rupee. By the end of 1903-4, about 2½ crores of 1835 rupees and a little more than 14 crores of 1840 rupees of both

issues had in this way been withdrawn from circulation; and the process is still going on. Thus, while the mints were closed to the free coinage of silver, they were employed in replacing the withdrawn rupees, and also in supplying certain Native States with British rupees in substitution for their own currency, which their rulers had agreed to demonetize. In addition, it was from time to time found necessary to increase the currency in circulation in order to meet the public demand, as shown by the reduction of the proportion of silver in the currency reserve. The total coinage at the mints between 1893-4 and 1903-4 amounted to 55·9 crores, of which 29·7 crores represent a net addition to the circulation. The largest additions were made in 1900-1 (13·27 crores) and in 1903-4 (10·65 crores). At the beginning of this period it was estimated, as the result of elaborate calculations, that the total number of rupees in circulation was between 125 and 130 crores, in addition to an unknown number in private hoards. If it be desired to ascertain the actual quantity of currency now in circulation, some allowance must be made for the export of rupees to the East coast of Africa and across the Himālayas; while, on the other hand, some addition must be made for the hoards forced into circulation during the recent periods of famine. Supposing that these two causes (of which the precise effects are unascertainable) have balanced each other, the total present circulation may be estimated at between 155 and 160 crores.

The coinage of Native States.

The right of coinage, which had been acquired by the principal Native States during the decay of the Mughal empire, was not taken away when they fell under British suzerainty. In 1893 thirty-four States still possessed their own mints, which issued coins bearing the device of the State and current within its limits. The weight and fineness of these coins differed in many cases from those of the British rupee, and some inconvenience to local trade resulted from this cause. An Act was therefore passed in 1876 empowering the Governor-General-in-Council to declare coins of Native States of the same fineness and weight as the Government coins to be, subject to certain conditions, a legal tender in British India, and authorizing Native States to send their metal to the mints of the Government of India for coinage. The States of Alwar and Bīkaner alone availed themselves of the opportunity afforded by this Act. When the Government mints were closed in 1893 the value of the Native States' rupees fell considerably below the token value of the British rupee, and these States

and their subjects suffered loss and inconvenience. The Government of India decided that the provisions of the Native Coinage Act of 1876 were not applicable to the new condition of affairs brought about by the closure of the mints, but agreed to purchase the existing rupees of Native States at their current market value and to supply British rupees in their place. About sixteen States, among which may be mentioned Kashmīr, Gwalior, Baroda, and Bhopāl, have taken advantage of this offer, which involves cessation of their own coinage.

The paper currency.

Under Acts of 1839, 1840, and 1843, the Presidency banks of Bengal, Bombay, and Madras were authorized to issue notes payable on demand, but the circulation of the notes was practically limited to the three Presidency towns. These Acts were repealed by an Act of 1861, which provided for the issue of a paper currency through a Government department by means of notes of the Government of India payable to bearer on demand. Since then no banks have been allowed to issue notes in India. The denominations of the notes are Rs. 5, 10, 20, 50, 100, 500, 1,000, and 10,000. The Rs. 10 notes are more commonly used than those of other denominations[1]. Calcutta, Madras, Bombay, and Rangoon are the head offices of issue. Calcutta has subordinate offices of issue at Allahābād[2] and Lahore, Madras at Calicut, and Bombay at Karāchi. Notes are issued in exchange for silver coin from every paper currency office, and in exchange for gold bullion and gold coin from the head offices in Calcutta and Bombay, on the requisition of the Comptroller-General. Notes may also be issued on the security of gold deposited in England. Every office of issue is the centre of a circle within the limits of which its notes are legal tender. Notes of higher value than Rs. 5 are payable only at the office of issue, save that the notes of subordinate offices have hitherto been payable also at the corresponding head office. Beyond this the law imposes no obligation to pay; but, for the accommodation of the public, notes of other circles are cashed at any paper currency office to such extent as the convenience of each office will permit. In ordinary circumstances, too, every Government treasury cashes or exchanges notes if it can do so without inconvenience; and when this cannot be done for large sums, small sums can generally be exchanged for travellers. Measures have recently been taken

[1] Trade remittances are largely made by means of currency notes, and in small towns these are often at a premium in consequence.

[2] In 1905 it was decided to transfer the Allahābād office of issue to Cawnpore.

to make Rs. 5 notes cashable as of right at any Government treasury in India proper. The gold and silver received for currency notes is retained and secured as a reserve for payment of notes issued, with the exception of a fixed sum which is invested in Government securities as representing a safe proportion of the notes not likely to be presented for encashment. This sum has been raised from time to time with the increase of the note circulation, and the fixed sum invested is now 12 crores. The interest accruing on the invested reserve is entered in a separate account and paid to the credit of the Government of India. It represents nearly 35 lakhs. The following statement shows in crores of rupees the average gross and net circulation of currency notes for the years 1888–9, 1893–4, 1898–9, and 1903–4. The 'net' circulation excludes the amounts held at Government treasuries.

	In crores of rupees.			
	1888–9.	1893–4.	1898–9.	1903–4.
Gross circulation .	16.43	28.29	25.63	36.41
Net . . .	Not available	20.83	21.82	30.39

Banking

Native money-lenders.

The industry of India is financed by two classes of institutions, the native money-lenders and the banking concerns which have been established on European models. The indigenous agency varies from the wealthy banker of the large town to the petty village *mahājan* who advances small sums of money or small quantities of grain to the ryots of the neighbourhood. Although the majority of these money-lenders have only a small local business, the aggregate of their transactions amounts to an enormous sum. The *mahājan* does not court publicity, and it would hardly be possible to frame an estimate of the total business of this class of persons. In 1902–3 bankers (other than banking companies) and money-lenders paid a total income-tax of about 43 lakhs, representing a total profit for the year of about 19 crores. In former days, native bankers, or shroffs, conducted large transactions at the chief commercial centres and at the courts of native rulers, to whom they sometimes acted in the capacity of finance ministers. Even in times of trouble and anarchy, their persons were usually respected. Their credit stood so high that their bills of exchange, or *hundis*, were readily negotiable throughout the country, and often beyond the boundaries of India. The utility of these *hundis* as a medium of remittance has now been largely superseded by the growing use of Government currency

notes. The village *mahājan* has the great advantage of an intimate knowledge of the affairs of his constituents. He charges a very high, and sometimes an exorbitant, rate of interest; but it must be remembered that, owing to the impecuniosity of his clients, the risk of non-payment is often great. The work of these local money-lenders has its beneficial and its evil aspect. The system is well adapted to bring capital to the land in the minute doses which the agricultural condition of India demands; on the other hand, the high rate of interest presses heavily on the debtor, while ready access to the money-lender is a temptation to extravagance. This temptation has grown with the extension of railways and trade, which have given a readily realizable money value to crops and land. The ignorant and short-sighted peasant is apt to indulge in a scale of expenditure on marriage ceremonies and other festivals which he cannot afford, and debts contracted for such purposes at a high rate of interest too often result in his ruin. In some parts of India agricultural indebtedness has grown to be a great evil, which has forced the Government to have recourse to special legislation.

Government loans to cultivators, and agricultural banks.

We are here concerned only with the measures which are of a financial character. One of the most important of these is the practice, which is now in common force, of the grant to cultivators of Government loans, often made on the joint and several responsibility of the villagers, for agricultural improvements and the purchase of seed, cattle, &c. The advances made in ordinary years are greatly increased in times of famine or scarcity. In 1900–1 the total advanced to cultivators amounted to more than 2 crores. An experiment, which may have far-reaching results, is now being made in the introduction of co-operative credit societies, on the lines of the 'agricultural banks' which have been so successful in improving the condition of the poorer classes in some European countries. The principal objects of these societies are the encouragement of thrift, the accumulation of loanable capital, and the reduction of interest on borrowed money by a system of mutual credit. The experiment has been started on a small scale in Madras, the United Provinces, Bengal, and the Punjab, and great pains are being taken to encourage the growth of the societies and to make the villagers realize the benefit to be derived from them. Should this system, which has now been regulated by legislation, be successfully developed, it will confer a benefit on the rural population the importance of which it would be difficult to overestimate.

Post Office savings-banks.

Another class of institutions for the encouragement of thrift are the Post Office savings-banks. These banks were not started specially for the benefit of agriculturists, and are more extensively patronized by other classes of the community, such as Government clerks and other persons with fixed incomes. Until 1882-3 the savings-bank business was carried on in the three cities of Calcutta, Madras, and Bombay by the Presidency banks, and elsewhere at the Government treasuries. As long as this system was maintained the business grew but slowly. The establishment of savings-banks in the post offices was followed by a rapid change, and the number of depositors and the total of the deposits have largely increased, although the facilities afforded have as yet attracted only an inappreciable proportion of the population—1 in 286 as compared with 1 in $4\frac{1}{2}$ in the United Kingdom. The number of depositors on March 31, 1904, was about 987,600 and the balance at their credit on that date nearly $12\frac{1}{3}$ crores.

European banking institutions.

The banking establishments constituted on a European model are concerned with the larger operations of commerce, and one of their most important functions is to finance the export trade. At the head of the banking institutions are the Presidency banks of Calcutta, Madras, and Bombay, and then come the exchange[1] and other joint-stock banks. The Presidency banks are joint-stock companies whose constitution, government, capital, and business are regulated by an Act of the Indian legislature passed in 1876. Formerly the Government kept the whole of its balances at the Presidency towns in these banks; but experience showed that this practice was dangerous, because it might, and did on one occasion, so happen that the Government could not withdraw funds of its own which it needed without seriously disturbing the money market. Since 1876 the Government has therefore kept only a portion of its head-quarters balances in these banks, the remainder being deposited in special reserve treasuries[2] at Calcutta, Madras, and Bombay. In 1903 the three Presidency banks had a capital of 3·6 crores, and a reserve of 2·4 crores, while the Government deposits amounted to 2·9 crores, and the private deposits to 17·7 crores. In the same year the capital of the other European banks (eight exchange and eight

[1] The exchange banks are largely concerned with trade remittances between India and other countries, hence their name. Their head offices are located out of India.

[2] There are in addition Government treasuries in every District, where sufficient balances are maintained to meet local demands.

local) amounted to 18 crores, and their reserve to more than $7\frac{1}{2}$ crores. The greater part of the capital of the exchange banks is, however, employed out of India. Taking the Indian share at one-third, the total capital available in 1903 for financing the major operations of Indian trade amounted to about $15\frac{1}{2}$ crores. In the same year the aggregate of the deposits in the Presidency banks, in the Indian branches of the exchange banks, and in the other joint-stock banks was 47·5 crores, of which about 3 crores represented Government balances in the Presidency banks. As a matter of fact, the great banker of the country is the Government itself, since it holds the greater part of its own cash balances, has the sole control of the paper currency, and controls exchange by its transactions with the Secretary of State.

Proposed Central Bank for India.

Of recent years the condition of the banking arrangements in India has formed the subject of frequent consultation between the Government and the mercantile community. The deliberations have centred round two main questions: firstly, whether the Government could not with advantage transfer some part of the great responsibility which it now accepts in connexion with the currency and other financial matters to a banking institution; and secondly, whether the existing banking facilities are adequate to the needs of the growing trade of India, and if not, how they may best be extended. The plan which at first commended itself to the Government of India was the amalgamation of the three Presidency banks into a single Central Bank constituted on a sterling basis and with access to the London money market. It was believed that such a bank would be able to relieve the Government of its present heavy responsibilities, and would secure the advantages arising from the control of the banking system by a solid and powerful central institution. Many objections were made to the proposal, and the Government reluctantly came to the conclusion that the circumstances were for the time being unfavourable to the policy of the centralization scheme. At present the Government has under consideration the question whether certain of the restrictions placed by law on the business of the Presidency banks might not be relaxed with safety. They are, for instance, debarred, as the law now stands, from raising money in the English market.

Adequacy of existing banking facilities.

As regards the trade question, careful investigation does not bear out the allegation, which has been frequently made, that existing banking facilities are seriously inadequate to cope with trade requirements; but it leads to the conclusion that these

facilities have not always been used in such a fashion as to yield the full advantages which they are capable of affording. Banking capital has grown in proportion to the increasing demands made on it, while the influx of capital from England has been encouraged by the establishment of a steady rate of exchange. What is required is that banking institutions should be conducted with such circumspection as will ensure their resources being reasonably free for the use of their trading clients in seasons of business activity. That they have not always been so conducted in the past is the main cause of the extreme stringency in the money market which has occurred on several occasions, and notably during the first six months of 1898, to the great detriment of trade.

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